PB87-139358

Guidance for the Reregistration of Pesticide Products Containing Propargite as the Active Ingredient

(U.S.) Environmental Protection Agency
Washington, DC

30 Sep 86

U.S. Department of Commerce
National Technical Information Service
NTIS

50272-101

REPORT DOCUMENTATION PAGE

1. REPORT NO.

2.

3. Recipient's Accession No. PB87-139358/AS

4. Title and Subtitle

Guidance for the REgistration of Pesticide Products
Containing PROPARGITE as the Active Ingredient.

5. Report Date 9/30/86

6.

7. Author(s) EPA, Office of Pesticide Programs, Registration Division

8. Performing Organization Rept. No. 540/RS-87-136

9. Performing Organization Name and Address

US Environmental Protection Agency
Office of Pesticide Programs
Registration Division TS-767C
401 M Street, SW
Washington, DC 20460

10. Project/Task/Work Unit No.

11. Contract(C) or Grant(G) No.

(C)

(G)

12. Sponsoring Organization Name and Address

SAME AS #9

13. Type of Report & Period Covered

14.

15. Supplementary Notes

16. Abstract (Limit: 200 words)

This document contains information regarding the registration of pesticide products containing the subject active ingredient. The document includes how to register under a registration standard, regulatory position and rationale, and summaries of data requiements and data gaps. Also included is a bibliography containing citations of all studies reviewed by EPA in arriving at the positions and conclusions contained in the standard.

17. Document Analysis a. Descriptors

Pesticides, standards, regulations, manufacturing, chemistry, toxicology, residues, ecology, path of pollutants.

b. Identifiers/Open-Ended Terms

c. COSATI Field/Group

18. Availability Statement Publicly Available

19. Security Class (This Report) Unclassified

20. Security Class (This Page) Unclassified

21. No. of Pages 164

22. Price $18.95

(See ANSI-Z39.18)

See Instructions on Reverse

OPTIONAL FORM 272 (4-77)
(Formerly NTIS-35)
Department of Commerce

I

United States
Environmental Protection
Agency

Office of
Pesticides and Toxic Substances
Washington DC 20460

540/RS-87-136
September 1986

Pesticides

EPA

PB87-139358

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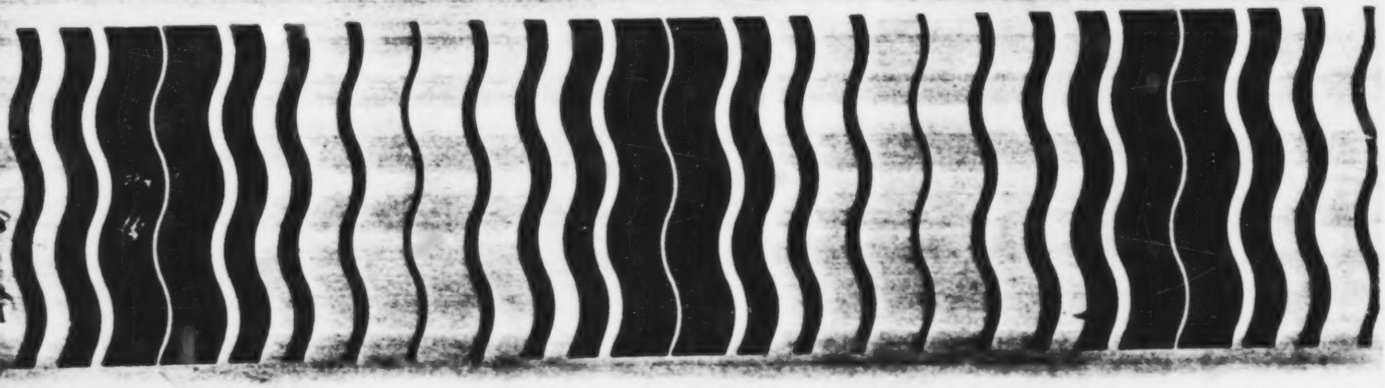
as the Active Ingredient



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U.S. DEPARTMENT OF COMMERCE
NATIONAL TECHNICAL
INFORMATION SERVICE
SPRINGFIELD, VA. 22161

540/RS-87-136

GUIDANCE FOR THE
REREGISTRATION OF PESTICIDE PRODUCTS
CONTAINING
PROPARGITE
AS THE ACTIVE INGREDIENT

Case No. 0243

September 30, 1986

ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF PESTICIDE PROGRAMS
WASHINGTON, D.C. 20460

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GLOSSARY OF ABBREVIATIONS AND ACRONYMS

A	acre
a.i.	active ingredient
A/D	adult toxicity/developmental toxicity
CDFA	California Department of Food and Agriculture
CFR	Code of Federal Regulations
CR	California Recipe (a propargite product formulation)
DCI	data call-in
EC	emulsifiable concentrate
EEC	estimated environmental concentration
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act
g	gram
gal	gallon
HDT	highest dose tested
kg	kilogram
l	liter
LC_{50}	concentration of test chemical at which 50% of the test subjects die
LD_{50}	dosage level of test chemical at which 50% of the test subjects die
LEL	lowest effect level
MBYP	meat by-products
mg	milligram
ml	milliliter
MPI	maximum permitted intake
MTD	maximum tolerated dose
NOEL	no observable effect level
PADI	provisional acceptable daily intake
PMPI	provisional maximum permitted intake
ppm	parts per million
TLC	thin layer chromatography
TMRC	theoretical maximum residue contribution
WP	wettable powder

INTRODUCTION
The Registration Standards Program

EPA has established the Registration Standards program to provide an orderly mechanism by which pesticide products containing the same active ingredient can be reviewed and standards set for compliance with the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). The standards are applicable to reregistration and future applications for registration of products containing the same active ingredient. Each registrant of a product containing an active ingredient subject to this Standard who wishes to continue to sell or distribute that product must bring his product and labeling into compliance with FIFRA, as instructed by this Standard. Pesticides have been grouped into use clusters and will be reviewed on the basis of a ranking scheme, giving higher priority to (1) pesticides in clusters used on food and feed crops; and (2) pesticides produced in large volumes.

The Registration Standards program involves a thorough review of the scientific data base underlying a pesticide's registration. The purpose of the Agency's review is to reassess the potential hazards arising from the currently registered uses of the pesticide; to determine the need for additional data on health and environmental effects; and to determine whether the pesticide meets the "no unreasonable adverse effects" criteria of FIFRA. In its review, EPA identifies:

1. Studies that are acceptable to support the data requirements for the currently registered uses of the pesticide.

2. Additional studies necessary to support continued registration. The additional studies may not have been required when the product was initially registered or may be needed to replace studies that are now considered inadequate.

3. Labeling revisions needed to ensure that the product is not misbranded and that the labeling is adequate to protect man and the environment.

The detailed scientific review, which is not contained in this document but is available upon request[1], focuses on the pesticide active ingredient. The scientific review primarily discusses the Agency's evaluation of and conclusions from available data in its files pertaining to the pesticide active ingredient. During the review of these data, however, the Agency is also looking for potential hazards that may be associated with the end-use products that contain the active ingredient. The Agency will apply the provisions of this Registration Standard to end-use products if necessary to protect man and the environment.

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[1] The scientific reviews are available upon request from the Information Services Section, Room 236, CM#2, 1921 Jefferson Davis Highway, Arlington, Va. 22202 (Tel: 703-557-4453). Approximately 90 days after issuance of this Standard, the reviews may be purchased from the National Technical Information Service, 5285 Port Royal Road, Springfield, Va. 22161.

EPA's reassessment results in the development of a regulatory position, contained in this Registration Standard, on the pesticide and each of its registered uses. (See Section 3, "Regulatory Position and Rationale.") Based on its regulatory position, the Agency may prescribe a variety of steps to be taken by registrants to maintain their registrations in compliance with FIFRA. These steps may include the following:

1. Submission of data in support of product registration;

2. Modification of product labels;

3. Modifications to the manufacturing process of the pesticide to reduce the levels of impurities or contaminants;

4. Restriction of the use of the pesticide to certified applicators or other specially trained individuals;

5. Modification of uses or formulation types; or

6. Specification of packaging limitations.

Failure to comply with these requirements may result in the issuance of a "Notice of Intent to Cancel" or a "Notice of Intent to Suspend" (in the case of failure to submit data).

In addition, in cases in which hazards to man or the environment are identified, the Agency may initiate a Special Review of the pesticide in accordance with 40 CFR Part 154 to examine in depth the risks and benefits of use of the pesticide. If the Agency determines that the risks of the pesticide's use outweigh the benefits of use, the Agency may propose additional regulatory actions, such as cancellation of uses of the pesticide that have been determined to cause unreasonable adverse effects on the environment.

EPA has authority under the Data Call-In (DCI) provisions of FIFRA section 3(c)(2)(B) to require that registrants submit data to answer our questions regarding the chemical, its toxicology, and environmental characteristics and fate. This

1. CHEMICAL COVERED BY THIS STANDARD

1.1 DESCRIPTION OF THE CHEMICAL

The following chemical is covered by this Registration Standard:

Common Name:	Propargite
Chemical Name:	2-(p-tert-butylphenoxy)cyclohexyl 2-propynyl sulfite
Empirical Formula:	$C_{19}H_{26}O_4S$
Trade Names:	Omite, Comite, and Uniroyal D014
Chemical Abstracts Service (CAS) No.:	2312-35-8
OPP (Shaughnessy) No.:	097601
Physical Characteristics:	Viscous liquid. Dark amber color. Faint solvent odor to very faint solvent odor. Specific gravity = 1.085 - 1.115 at 25°C; Bulk density = 40.92 lb/ft^3. Solubility in water, about 0.5 ppm at 25°C, miscible with organic solvents such as acetone, benzene, and ethanol. No evidence of breakdown in 1 year. Flash Point: at least 38.5°C.

1.2 USE PROFILE

Propargite is an acaricide registered for the control of mites (clover, European red, Pacific spider, strawberry spider, twospotted spider, McDaniel spider, Banks grass, Southern red, citrus red, citrus rust, false spider, sixspotted, Texas citrus, Willamette spider, and Southern red). Propargite's mode of activity involves residual killing action. Propargite was first registered in 1969 and is available as a 85 percent active ingredient technical product and as a 25 percent active ingredient formulation intermediate product for formulating propargite end-use products. Propargite is formulated as 5, 6, and 6.55 pounds per gallon emulsifiable concentrates (ECs); a 4 percent dust; and a 30 percent wettable powder (WP). The emulsifiable concentrates are the most widely used formulations. Registered propargite products are formulated with propargite as

Registration Standard lists the data EPA believes are necessary to resolve our concerns about this pesticide. These data are listed in the Tables A and B in Appendix I. Failure to comply with the DCI requirements enumerated in this Registration Standard may result in issuance by EPA of a "Notice of Intent to Suspend" the affected product registrations.

Registrants are reminded that FIFRA section 6(a)(2) requires them to submit factual information concerning possible unreasonable adverse effects of a pesticide at any time that they become aware of such information. You should notify the Agency of any information, including interim or preliminary results of studies, if those results suggest possible adverse effects on man or the environment. This requirement continues as long as your products are registered by the Agency.

2. AGENCY ASSESSMENT

This section of the Standard is the Agency's summary assessment of the known safety of propargite: its toxicity to non-target animal species and its effects on the ecology and physical environment. This assessment is based on a review of currently available published and unpublished data and other literature on propargite (cited in the Registration Standard Bibliography).

2.1 SUMMARY SCIENCE STATEMENT

Propargite has a low acute (category III) oral, dermal, and inhalation toxicity. It is in toxicity category I, however, for primary eye and primary skin irritation, and cases of severe dermatitis afflicting field workers reentering treated fields have been reported.

Chronic testing reveals that propargite appears to have little effect on laboratory animals and only at higher dosage levels; effects reported include depressed body weights and rates of weight gain. Oral subchronic test results appear to parallel those for chronic testing. Propargite is not teratogenic in rabbits and rats.

Insufficient data exist to fully assess the dermal sensitization, subchronic dermal toxicity, subchronic inhalation toxicity, reproductive effects, metabolism, and mutagenicity of propargite. Reentry data are necessary in order to establish permanent worker reentry intervals.

Propargite is relatively nontoxic to honeybees and avian species. It is very highly toxic to freshwater fish. The actual threat to aquatic organisms (including endangered species) cannot be accurately assessed at this time due to the insufficiency of environmental fate data. Additional testing is also needed to determine the effects of end-use products on coldwater and warmwater species of fish, aquatic invertebrates, and estuarine and marine organisms.

The Agency assessed the current residue tolerances for propargite and reached the following conclusions:

1. The metabolism of propargite in both plants and animals is not sufficiently understood. Additional metabolism data are necessary.

the sole active ingredient and in combination with other active ingredients.

The major agricultural uses of propargite are for mite control in the production of field and vegetable crops (field corn, cotton, grapes). Propargite is also registered for use after planting on nonfood crops (ornamentals), aquatic food crops (cranberry), and greenhouse nonfood crops (ornamentals). Of the total amount of propargite applied in the United States, approximately 67 percent is applied to field corn, cotton, and grapes. Application rates for terrestrial food crops range from 0.75 - 6.75 pounds active ingredient per acre (a.i./A). Application rates range from 0.3 - 0.45 pounds a.i./A for terrestrial non-food crops uses.

Propargite is applied primarily through the use of high volume (350 - 800 gal/A) or low volume (25 - 100 gal/A) air blast ground sprayers. Fixed wing or rotary aircraft may be used when orchards are too wet for ground rigs or when critical timing precludes ground rigs from covering the orchard in time to adequately control pests.

Uniroyal chemical is the sole domestic producer of propargite. There are no foreign producers.

1.3 REGISTRATION HISTORY OF PROPARGITE

Propargite was patented by Uniroyal Chemical in 1966 and was first registered for use in 1969. Technical propargite is being produced in the United States by Uniroyal Chemical of Bethany, Connecticut. There are three registrants of products containing propargite: Chevron Chemical Company, FMC Corporation, and Uniroyal Incorporated. Currently, there are approximately 69 products registered, of those 59 are intrastate registrations. There are 32 section 24(c) registrations.

Two data call-in notices have been issued on propargite. The first notice, dated March 14, 1986, was issued because some of the raw data in residue studies (cattle, poultry, and apples) and rotational crop accumulation studies were incomplete or missing. Registrants were requested to either make available to the Agency acceptable, complete raw data pertaining to the existing studies, or submit new, replacement studies. The second data call-in notice, dated May 23, 1986, was for worker reentry data, requested because a potential for fieldworker poisoning from propargite exists.

2. The Agency does not have any relevant storage stability data for propargite. Such data are necessary.

3. With submission of previously mentioned metabolism and storage stability data, sufficient data will exist to determine the adequacy of tolerances for certain propargite uses; additional crop residue data are needed for other propargite uses.

4. Processing studies are required for potatoes, oranges, apples, plums, grapes, corn, sorghum, cottonseed, hops, and peanuts to more accurately assess residues in or on processed foods.

2.2 TOXICOLOGICAL CHARACTERISTICS AND CONCERNS

This subsection summarizes the results of studies and reports to the Agency relating to the acute, subchronic, chronic, reproductive, teratogenic, and mutagenic effects of propargite. Also discussed are the potential for and risks of human exposure to the chemical.

ACUTE TOXICITY

Based on acute oral LD_{50} testing with rats, dermal LD_{50} testing with rabbits, and acute inhalation LC_{50} testing with rats, technical propargite has been placed in toxicity category III.

In the oral test with rats, five groups of five male and five female rats received dosages of 1.0, 2.0, 3.0, 4.0, and 5.0 g/kg of bodyweight. The acute oral LD_{50} was determined to be 2.2 g/kg.

The dermal test consisted of applying the test substance at dosage levels of 0.316, 1.0, 3.16, and 10.0 ml/kg of bodyweight to abraded and intact skin of four male and four female albino rabbits. The exposure period was 24 hours. The acute dermal LD_{50} was reported to be 3.16 (1.63 - 6.15) ml/kg.

For the inhalation test, three groups of five male and five female Wistar albino rats were exposed to the aerated test material at dosages of 0.15, 0.25, and 2.5 mg/l for a period of 1 hour. No deaths occurred in the saturated atmosphere, and no signs of gross pathology or toxicity were observed during the 14-day observation period. The acute inhalation LC_{50} was determined to be greater than 2.5 mg/l.

Propargite is in toxicity category I for primary eye and skin irritation. A single application of 0.1 ml of technical propargite into the unwashed eyes of six albino rabbits produced severe irritation (irritation score: 33.7/110.0). Corneal effects that were not reversible after 14 days were observed in four of six rabbits. This study satisfies the requirement for data on primary eye irritation.

In a primary skin irritation study, propargite technical was applied to intact and abraded skin of six albino rabbits for 24 hours. The compound caused second degree chemical burns to all rabbits tested (primary skin irritation score: 7.1/8.0). Thus, propargite is considered extremely irritating to rabbit skin. This study satisfies the requirement for data on primary skin irritation.

A sensitization study is required on technical propargite, preferably in the guinea pig. The existing study is insufficient because dates for dosing and scoring were not given in the raw data. (This study can be upgraded if the missing information is provided by the data submitter.)

SUBCHRONIC TOXICITY (ORAL)

A subchronic 90-day feeding study with technical propargite has been conducted in the rat. The test compound was fed to five groups of weanling albino rats consisting of five males and five females each for 90 days at dosage levels of 10, 20, 40, 100, and 200 mg/kg body weight per day in the diet. A control group of 15 males and 15 females was used and received no treatment. Clinical examination, including hematological and blood chemical examinations, disclosed no abnormalities. Growth was retarded in the 100 mg/kg group and to a greater extent in the 200 mg/kg group. Marked reduction in absolute organ weights in the 200 mg/kg group was observed. Gross and microscopic examination of liver, kidneys, adrenals, and gonads of the rats disclosed no significant abnormalities in any of the treated groups. The no observable effect level (NOEL) is 40 mg/kg/day. Although less than 10 rats/sex/dose were employed, the use of five dose levels in the study satisfies the requirement for a 90-Day feeding study.

In another subchronic 90-day oral feeding study, male and female beagle dogs were fed at a dietary level from 2000 to 2500 ppm. Signs of apparent compound effects among the test dogs were decreased appetite and body weight loss. The test animals were comparable with the controls in appearance, behavior, elimination, results of clinical laboratory studies, organ weights, organ/body weight ratios, and gross necropsy findings.

The NOEL is less than 2000 ppm. Because the NOEL could not be specifically determined, the study is considered only supplementary. (However, the subchronic data requirements are satisfied with a 2-year dog study with a NOEL greater than 900 ppm (highest dose tested - HDT) (core minimum)).

SUBCHRONIC TOXICITY (DERMAL)

There are no data available related to the subchronic dermal toxicity for technical propargite. Data from a subchronic 21-day dermal toxicity are required by 40 CFR Part 158 to support the registration of each manufacturing-use product and, also, each end-use product with a potential for significant human dermal exposure from its regulated use.

SUBCHRONIC TOXICITY (INHALATION)

There are no data available related to the subchronic inhalation toxicity of technical propargite. Data from a subchronic 90-day inhalation toxicity study are required by 40 CFR Part 158 to support the registration of each manufacturing-use product and, also, each end-use product with a potential for significant human inhalation exposure from its regulated use.

CHRONIC FEEDING/ONCOGENICITY

There are available a 2-year chronic feeding study in dogs and chronic feeding/oncogenicity studies in mice and rats. A discussion of these studies follows.

Chronic Feeding Data: In a chronic feeding study, four male and four female purebred beagle dogs were fed propargite for 2 years at 0, 100, 300, and 900 ppm. Growth and food intake were comparable to the control group. No adverse effects were observed by the hematology, blood chemistry determinations, or urine examinations. Gross postmortem examination failed to reveal any dose-related effects. No significant microscopic changes in the organs and tissues examined were observed. The NOEL is 900 ppm (HDT). This study satisfies the requirement for a chronic feeding study in a non-rodent.

Feeding/Oncogenicity Data: Sixty male and sixty female albino mice (CD-1 outbred from Charles River Breeding Laboratories) per dose group were fed propargite for 18 months at 0, 50, 160, 500, and 1000 ppm. Daily observations of the animals for

18 months revealed no untoward effects on food consumption, body weights, hematology, and survival. Variable organ weight changes in the kidney, adrenal, and uterus were not supported by any pathology in these organs. The NOEL is greater than 1000 ppm. Because the 30-day range-finding study demonstrated decreased body weight gain in females at 1350 ppm and in males at 3000 ppm, the highest dose selected of 1000 ppm for oncogenicity testing is sufficiently close to an apparent maximum tolerated dose (MTD) of 1350 ppm to conclude that this study satisfies the requirement for an oncogenicity study in one species of rodent.

In another feeding/oncogenicity study, 25 male and 25 female weanling rats of the FDRL strain were fed propargite at 0, 100, 300, and 900 ppm for 2 years and 2000 ppm for 1.5 years. Fifteen rats of each sex were used as controls. No dose-related responses were disclosed by hematology, blood chemistry determinations, or urinalysis. Scattered instances of lower mean body weight gains at weeks 26 through 104 were noted in females receiving diets of 100, 300, and 900 ppm when compared to the control values. However, the mean body weight gain for females in all treated groups was about 6 percent reduced at 104 weeks of the study when compared to the control values, which appears not to be statistically significant. At 74 weeks the mean body weight of rats fed 2000 ppm (HDT) was significantly reduced for both males and females and appeared to be a compound-related effect. This group also consumed less food and had a lower mean body weight gain when compared to the control group. The NOEL = 900 ppm. This study is considered supplementary and does not satisfy the requirement as a chronic feeding/oncogenicity study as too few animals were examined histologically at 900 and 2000 ppm. A chronic feeding study in the rodent is required, as is an oncogenicity study in a second rodent species (rat).

NEUROTOXICITY

Propargite is not related to a known group of cholinesterase inhibitors, such as organophosphate chemicals; therefore, neurotoxicity data on propargite have not been required.

METABOLISM

A review of the in vivo metabolism study in the rat indicated that the data are deficient in the following areas:

1. Low and upper dose levels should be used in the study. The low dose should should correspond to a NOEL, and

the upper dose should produce toxic or pharmacologic signs but not produce severe effects or high incidence of mortality.

2. At least 10 animals (5 males and 5 females) should be used at each dose level.

3. The amount and rate of absorption should be determined.

4. Distribution of the test chemical among tissues, organs, and fluids should be determined.

5. Significant metabolites should be identified and quantified.

These study requirements are cited in section 85-1, "Metabolism Study, Pesticide Assessment Guidelines, Subdivision F," October 1982.

TERATOGENICITY

Teratogenicity studies are available in the rabbit and rat for propargite.

Four groups of 17 pregnant female rabbits were fed diets of the test material containing 0, 2.0, 6.0, 10.0, and 18.0 mg/kg/day on gestation days 6 through 18. Maternal toxicity was observed in all groups and consisted of adipsia and anorexia, while depression of behavioral activity was noted more frequently in high dose groups (10.0 and 18.0 mg/kg/day). A dose-related decrease in body weight gain in the does was noted at 6 mg/kg and above. The decrease was statistically significant in the highest group (18.0 mg/kg/day). The fetuses showed delayed ossification at 6.0 mg/kg and above; this was considered related to maternal toxicity of the test compound. Fetotoxicity was evidenced by increased resorptions and reduced fetal body weight at 6.0 mg/kg/day and reduced fetal viability at the two highest groups (10.0 and 18.0 mg/kg/day) with a NOEL of 2.0 mg/kg/day.

Teratogenic NOEL:	10 mg/kg/day (too few fetuses at the highest dose 18.0 mg/kg for evaluation).
Maternal Lowest Effect Level (LEL):	6 mg/kg (decrease in body weight gain)
Maternal NOEL:	2 mg/kg

Fetotoxic LEL :	6 mg/kg (delayed ossification, increased resorptions, decreased fetal body weight)
Fetotoxic NOEL:	2 mg/kg

The adult toxicity/developmental toxicity (A/D) ratio = Maternal LEL/Fetotoxic LEL = 6/6 = 1

In the rat study, Propargite was administered by gavage to pregnant rats from day 6 through day 15 of gestation at levels of 0, 6, 25, or 105 mg/kg body weight per day. An increase in maternal toxicity and mortality was observed at the highest dose tested (105 mg/kg/day).

Teratogenic NOEL:	> 105 mg/kg/day
Maternal NOEL:	25 mg/kg
Fetotoxic LEL:	25 mg/kg/day (increased missing sternebrae)
Fetotoxic NOEL:	6 mg/kg/day

The A/D ratio = Maternal LEL/Fetotoxic LEL = 105/25 = 4.

This study is considered as core minimum and satisfies the data requirements.

REPRODUCTION AND FERTILITY

A three-generation reproduction study was carried out with 25 male and 25 female rats fed 0 or 100 ppm propargite for one generation; the dose of the treatment group was increased to 300 ppm for the next two generations. The study results revealed no significant effects on either fertility or reproductive performance. Neonatal viability and lactation efficiency of the dosage group, as evidenced by the survival and growth of the young rats from birth to weaning, were comparable to that of the control group. Mean body weight of the pups was also comparable with the mean body weight of the control group. The NOEL is greater than 300 ppm.

This study is considered as supplementary, as only one dose was used for each generation.

MUTAGENICITY

Propargite was tested for mutagenic activity in a series of in vitro microbial assays employing Salmonella and Saccharomyces indicator organisms. The compound was tested directly and in the presence of liver microsomal enzyme preparations from Aroclor-induced rats. The nonactivation and activation test results were all negative. Propargite did not induce any mutagenic activity in any of the assays conducted and was considered not mutagenic under these test conditions. Additional categories of mutagenicity testing are required for propargite.

RISKS OF HUMAN EXPOSURE

The Agency has not quantified the exposure to mixer/loaders and applicators handling or applying propargite. Propargite is not highly toxic by the dermal or inhalation route; however, it is extremely irritating and corrosive to the eyes and skin. Occupational exposure to the skin can be substantially reduced by the use of appropriate protective clothing during handling. Chemical resistant protective gloves will reduce dermal contact with the hands. During mixing/loading the hands frequently receive 50 to 99 percent of the total dermal exposure. Goggles or a face shield will provide protection to the eyes in case of accidental splashing during mixing/loading. Long sleeve shirts and long pants will limit the surface area of the body directly exposed to propargite from splashing during mixing/loading and spray contact during application, or foliar contact during early worker reentry to treated areas.

Due to the irritating effects to the eyes and skin, propargite has caused reentry problems in California over the years. The California Department of Food and Agriculture (CDFA) established a reentry interval of 14 days in response to a number of validated reentry poisoning episodes after the use of propargite. A 1980 episode involved over 50 field workers, who reentered treated vineyards 2 to 4 days after pesticide application. Another major poisoning episode occurred in 1986 after use of the propargite "California Recipe" (CR)* formulation: over 100 cases of severe dermatitis were reported among field workers picking citrus. In response to that episode, the CDFA proposed the establishment of a 35-day reentry interval for use of the CR formulation. The CR formulation has since been voluntarily withdrawn from the market in California.

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* The CR formulation is believed to persist on foliage considerably longer than other propargite formulations.

The CR formulation has been marketed in 13 other States, and the Agency has requested information on worker incidents from those States. Thus far, only four States have responded, and no adverse effects have been reported. The reentry problem is currently being evaluated, and the registrant of this formulation has voluntarily dropped all uses from the label other than for grapes, citrus, apples, almonds, hops, ornamentals, strawberries, and cherries.

The Agency does not have adequate data to set appropriate reentry times for the respective propargite formulations. It has compared dislodgeable residue data from a CDFA report with CDFA analysis of residues from the groves where the CR episode occurred and has concluded that dislodgeable residues of the CR formulation may persist longer than dislodgeable residues of the wettable powder formulation. The citrus foliar residues at 13 days after application of the CR formulation range from 1.46 to 2.91 ug/cm^2 (seven values, mean = 2.13, SD = 0.57), whereas residues 8 days after application of the wettable powder formulation to grapes range from 0.10 to 0.40 ug/cm^2 (four values, mean = 0.23, SD = 0.13). Until additional required reentry data can be provided and evaluated, the EPA is imposing interim reentry intervals of 7 days for all agricultural uses except strawberries, and 3 days for strawberries. These differing reentry intervals are because human exposure tends to be higher in tall crops such as tree fruit because of the greater amount of foliage contacted during work.

2.3 ENVIRONMENTAL FATE

Based on the data cited in this registration standard, there seems to be no reason to be concerned about the leaching of the parent chemical into groundwater. The environmental fate of this chemical still needs to be properly characterized, however, with special emphasis on possible metabolites. The following data summaries are derived from the reviewed studies that were found to be scientifically valid but do not fulfill the data requirements. These data summaries may change when additional information is received and reviewed.

Under anaerobic conditions, [^{14}C]propargite (ring-labeled, 99.94% pure), at 1 and 10 ppm in sandy loam soil, degraded with a half-life of 3 to 6 and greater than 12 months, respectively, when incubated in the dark at 25°C. The major degradate was [^{14}C]glycol ether representing a maximum of 38.4 percent of the applied ^{14}C after 12 months. Unidentified polar compounds represented less than 3.4 percent of the applied ^{14}C during the study.

$[^{14}C]$Propargite (purity unspecified) at 0.05 to 0.4 ppm was adsorbed and desorbed more readily in silt loam than in loamy soil. The Freundlich K values for adsorption and desorption in loamy sand were 86.1 and 292, respectively, and in silt loam were 698.2 and 6918, respectively.

$[^{14}C]$Propargite residues (uncharacterized) were detected in the leachate of 1-inch sandy loam and clay loam soil columns leached with 3 inches of water. Approximately 1.52 and 0.95 percent of the applied radioactivity was detected in the sandy loam and clay loam leachates, respectively.

$[^{14}C]$Propargite (95.9% pure) was immobile in sand and sandy loam soils, based on TLC tests. $[^{14}C]$Propargite (95.6% pure) at 0.5 lb active ingredient per acre (a.i./A) was relatively immobile in the runoff from a silt loam soil (10° slope) with 0.5 percent of applied detected in runoff water after application of 9 inches of water.

Propargite (30% WP or 75% EC) at 10.8 ppm or 5 lb a.i./A dissipated from the upper 6 inches of three soils in California and Vermont with a half-life of 4 weeks. The degradate, glycol ether, was not detected ($<$ 0.1 ppm) in any sample.

Confined rotational crop studies show potential for uptake of propargite residues at intervals of less than one year.

The following data are needed to fully assess the environmental fate and transport of propargite for its current uses: hydrolysis studies; photodegradation studies on soil and in water and air; aerobic and anaerobic soil metabolism studies; anaerobic and aerobic aquatic metabolism studies; leaching and adsorption/desorption studies; laboratory and possibly field volatility studies; terrestrial, aquatic, and long-term field dissipation studies; accumulation studies on confined and field rotational crops, irrigated crops, fish, and aquatic nontarget organisms; and reentry studies.

2.4 ECOLOGICAL CHARACTERISTICS AND CONCERNS

The relative lack of environmental fate data permits only a preliminary assessment of the hazards to non-target organisms. It appears, however, that risks to birds are unlikely, while risks to various aquatic organisms may be high based on acute studies in the laboratory and preliminary estimated environmental concentrations (EECs).

Toxicity data are not yet available for mollusks. Because fish usually serve as an intermediate host for larval mussels (glochidia), however, adverse effects on fish could adversely affect the mussel's habitat. The following discussion addresses these hazards.

AVIAN SPECIES

Propargite is practically nontoxic to avian species on an acute oral and subacute dietary basis. The acute oral LD_{50} value for the technical grade material (88% a.i.) was reported to be greater than 4640 mg/kg. Reported subacute dietary LC_{50} values for the technical and formulated product (57% a.i.) to bobwhite quail were 3401 and greater than 5620 ppm, respectively. Since propargite may be applied repeatedly, however, to cotton, citrus, grapes, and apples, birds may be subjected to repeated or continued exposure to the pesticide or its major metabolites or degradates. This would occur especially preceding or during the breeding season. For this reason, the Agency is requiring avian reproduction studies. Depending upon the results of the avian reproduction studies, residue level monitoring data may be required

NON-TARGET MAMMALS

The toxicity of propargite to mammals is low (rat LD_{50} > 2200 mg/kg). Therefore, it is unlikely that mammals would be acutely affected by a single application. Since propargite use patterns call for repeat applications, mammals such as rabbits, may be exposed to residues causing reproductive effects when propargite is applied to alfalfa and orchards. The potential for chronic effects cannot be determined until receipt of an acceptable 2-year rat reproduction study. Depending upon the results of this study, residue monitoring of mammalian feed items from alfalfa and orchard use may be required.

NON-TARGET INSECTS AND MITES

Studies indicate that propargite is low in toxicity to honeybees and to certain predacious beetles and mites. Therefore, it is unlikely that these non-target species would be affected by applications of propargite made in accordance with label instructions.

AQUATIC SPECIES

The Agency is concerned about the direct and indirect hazards that this material may pose to aquatic species. Based upon laboratory data, the Agency has characterized propargite as very highly toxic to aquatic invertebrates, highly toxic to cold and warmwater fish species and highly toxic to practically nontoxic to estuarine and marine organisms. Terrestrial residue analysis and aquatic runoff modeling further indicate that certain use patterns of propargite could result in exposure of certain aquatic organisms to potentially hazardous levels of the pesticide.

The potential for aquatic contamination is greatest, of course, for those uses in which propargite is introduced directly into the aquatic environment. This occurs during application of the pesticide to an "aquatic" crop, cranberries, but also could occur inadvertently through treatment of terrestrial crops, specifically, corn, cotton, and citrus. Such an occurrence would be the result of a wide dispersion spray operation, involving the application of propargite to fields traversed with irrigation systems ot interconnected ditches, canals, creeks, streams, and ponds. Lesser but significant contamination could result from drift, runoff, or soil erosion - the propargite being introduced indirectly to lakes, streams, ponds, other bodies of water, and wetlands. Environmental fate data indicate that propargite is immobile in sandy soils, and its persistence varies with pH in turbid or ground waters (half-life ranging from 2 to 55 days and perhaps even greater under certain conditions).

Because of these aquatic contamination concerns, the Agency is recommending precautionary labeling for aquatic organisms. The Agency is requiring additional fish, invertebrate, and estuarine and marine organism tests, using an end-use product to evaluate the potential toxicity to these organisms from terrestrial crop application with a potential for aquatic contamination. The Agency is also requiring additional field monitoring data designed to measure propargite residues in water from terrestrial applications to citrus, corn, and cotton.

ENDANGERED SPECIES

Based on terrestrial residue analysis, aquatic runoff modeling, and "cluster analysis"*, it appears that certain use patterns of propargite involve sufficient exposure to pose a potential hazard to certain endangered/threatened species. These species are cited in the following list. Respective use sites posing this hazard are in parenthesis.

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* In cluster analysis, all pesticides with the same use patterns are considered together. The Fish and Wildlife Service, Department of the Interior screens all the pesticides for a particular major crop or use pattern and prepares a biological opinion addressing all listed species that might be affected by the pesticides. Cluster analysis has been done on cotton, corn, small grains, sorghum, soybeans, rangeland, forest, and mosquito larvicide use patterns. Propargite has labeled uses for some of these sites, namely, cotton, corn, and sorghum.

Mollusks (corn, sorghum, and cotton)
Slackwater darter (corn and cotton)
Scioto madtom (corn)
Woundfin (corn and sorghum)
Pecos gambusia (cotton)
Comanche Spring pupfish (cotton)

Propargite is registered for several uses that have not been reviewed in the cluster approach or in registration submissions. It is anticipated that little exposure to listed species will occur with the rest of the registered propargite use sites: almonds, apricots, beans, cranberries, hops, mint, peaches, peanuts, plum, walnuts, and ornamentals. Though a review of these crops in the future crop reviews may add endangered species to the list thus far established, few additions are likely because of the broad geographical distribution of the crops that have already been reviewed.

2.5 TOLERANCE REASSESSMENT

Tolerances have been established for residues of propargite in a variety of raw agricultural commodities, in meat, fat, and meat byproducts (40 CFR 180.259), and in processed food (21 CFR 561.330) and feed (21 CFR 193.370). The Agency has evaluated the residue and toxicology data supporting these tolerances, and has made the regulatory determinations discussed in the following subsections.

PROPARGITE METABOLISM DATA ASSESSMENT

A review of available data on the nature of the residues in plants led to the conclusion that the metabolism of propargite in plants is not adequately understood. Additional data depicting the uptake, distribution, and metabolism of ^{14}C-labeled propargite in representative mature crops are needed. This data, preferably, should utilize an orchard tree fruit, potatoes, and corn grain and forage. The available plant metabolism data are not adequate because radiolabeled studies on the uptake, translocation and metabolism of propargite in plants show that (a) polar metabolites have not been adequately identified in bush beans; and (b) other than propargite itself, no metabolites were identified in peaches and corn. An investigation of ^{14}C-residues in bean plants resulting from foliar application revealed that the major residue consisted of parent compound (I) and metabolites II and III (propargite glycol ether and p-t-butylphenol, respectively) but, of these, only compound III was confirmed by co-chromatography with analytical standards.

Radiolabeled studies on the metabolism and translocation of propargite in poultry (including eggs) and ruminants (including milk) are likewise insufficient. The only in vivo ruminant metabolism study submitted was not adequate because (a) the time of sacrifice of the animals after the final treatment was not provided; (b) residues were not adequately characterized in any of the samples examined; and (c) the dosage regimen (number of doses administered, timing of dosing, etc.) was not described in sufficient detail. A submitted poultry study is inadequate because numerous obvious errors in computation of residue concentrations were found, and, with the information provided, the Agency was not able to calculate the correct values with any reasonable degree of certainty. Therefore, additional data are required.

STORAGE STABILITY DATA ASSESSMENT

The Agency does not have any relevant storage stability data for propargite. Therefore, storage stability data are required to support all established tolerances for residues. Storage intervals and conditions of storage of samples used must be submitted. These data must be accompanied by data depicting the percent decline in residues at the times and under the conditions specified. On receipt of these data, the adequacy of the aforementioned tolerances will be reevaluated.

PLANT TOLERANCES ASSESSMENT

Propargite is registered for use on almonds, apples, apricots, beans (dry, green, and lima), cranberries, corn (field and sweet), cotton, figs, grapefruit, grapes, hops, lemons, mint, nectarines, oranges, peaches, peanuts, pears (nonbearing and postharvest), plums, potatoes, prunes, sorghum (milo), strawberries, tea (dried), and walnuts. The following numbered paragraphs discuss the Agency position on the tolerances for these crops and the present adequacy or inadequacy of supportive data.

1. Sufficient data are available to ascertain the adequacy of the established tolerances for residues of propargite in or on succulent beans; cottonseed; cranberries; mint; peanut nutmeats, forage, hay, and hulls; potatoes; and sorghum forage and fodder (40 CFR §180.259 and 21 CFR §193.370), provided requested data for plant and animal metabolism and storage stability are submitted. It should be noted that the adequacy of established tolerances may change after information on the nature of the residues (metabolism) in plants and animals is submitted and evaluated.

2. Insufficient data are available to ascertain the adequacy of the established tolerances for residues of propargite in or on almond nutmeats and hulls, apples, apricots, dry beans, citrus pulp, sweet corn (kernals plus cob with husks removed), corn forage and fodder, fresh figs, grapes, grape pomace, grapefruit, hops, dried hops, oranges, pears, peaches, plums, raisins, grain sorghum, strawberries, tea, and walnuts (40 CFR §180.259, 21 CFR §561.330 and 21 CFR §193.370). The current tolerance on apples (3 ppm) is inadequate to cover the residues, and a petition to increase this to 10 ppm is under review. This will involve increasing the tolerance on apple pomace. Since the nature of the residues in plants and animals has not been adequately defined, however, action on the petition has been delayed until the earlier tier studies are completed and the Agency has evaluated the metabolites.

3. Processing studies are needed for potatoes, oranges, apples, plums, grapes, corn, sorghum, cottonseed, hops, and peanuts.

4. Tolerances for residues of propargite in or on sugar beets and sugar beet tops have been proposed and the data in support of these pending tolerances are now under review.

5. In addition to the conclusions stated previously regarding established tolerances, the Agency has made the following determinations:

(a) The commodity definition of "peanut forage" should be amended to "peanut vines" because the latter is the appropriate commodity definition.

(b) The postharvest application of propargite to cherry trees and avocados constitutes a food use. Therefore, tolerances for residues on cherries and avocados are required. For cherries, residue data on sweet and tart varieties are needed.

ANIMAL (PRODUCT) TOLERANCES ASSESSMENT

There are no Federally registered uses for propargite on animals. There are tolerances on animal products, however, as certain animals raised for meat or dairy purposes can be expected to ingest propargite-treated feed.

The maximum reasonable dietary intake of residues of propargite by beef cattle is 26 ppm if the diet consists of 50 percent sorghum grain (10 ppm), 20 percent of either corn forage, corn fodder, peanut vines or peanut hay (each 10 ppm), 25 percent almond hulls (55 ppm), and 10 percent dried apple pomace (80 ppm) - (established tolerances for residues are in parenthesis). The maximum dietary intake by dairy cattle is 37 ppm if the diet consists of 50 percent mint hay, 10 percent apple pomace, and 40 percent sorghum grain. The maximum dietary intake by swine is 12.7 ppm if the diet consists of 80 percent grain sorghum, 10 percent dry pomace, and 10 percent bean cannery residue. The maximum dietary intake by poultry is 11 ppm based on a diet consisting of 60 percent grain sorghum, 5 percent dry apple pomace, and 30 percent corn grain.

As stated in a previous subsection, at present, the nature of any residue in animals resulting from dietary intake of propargite is not adequately understood. Upon receipt of metabolism studies utilizing ruminants and poultry, the appropriateness of tolerances for residues in animal products will be determined and, with consideration for any newly found metabolites of toxicological concern, the adequacy of the available data regarding the magnitude of residues in animal products will be determined. Also, at that time, pertinent sample storage and storage stability information for animal commodities will be required.

PROPARGITE SPECIAL LOCAL NEED (SLN) REGISTRATIONS/INTRASTATE PRODUCTS

Propargite is registered for use on the following crops grown for seed: alfalfa, sweet corn, clover, and cucurbits. Alfalfa grown for seed (EPA SLN No. OR-790005) may be treated with the 6 lb/gal EC formulation (1.52 - 2.25 lb a.i./A) and the 6.55 lb/gal EC formulation (1.2 - 2.04 lb a.i./A, EPA SLN No. UT-790015). Sweet corn and clover grown for seed may be both treated with the 6.55 lb/gal EC formulation (1.2 - 2.04 lb a.i./A) in Washington (EPA SLN No. WA-770012). Sweet corn grown for seed may be treated with the 6.55 lb/gal EC formulation at 1.2 - 2.04 lb a.i./A in Oregon (EPA SLN No. OR-770013). Cucurbits grown for seed may be treated with the 6.55 lb/gal EC formulation at 1.6 lb a.i./A in California (EPA SLN No. CA-760179).

In addition, intrastate labels exist that permit use of the 6.55 lb/gal EC formulation on alfalfa grown for seed at 1.23 - 1.64 lb a.i./A in Nevada (EPA No. 400-6441), California (EPA No. 400-6460), and Oregon (EPA No. 400-6529); or at 1.23 - 2.04 lb a.i./A in Washington (EPA No. 400-6506) and Idaho (EPA No. 400-6478). Clover grown for seed may be treated with the 6.55 lb/gal EC formulation at 1.23 - 1.64 lb a.i./A in California (EPA No. 400-6458).

No tolerances exist for residues of propargite in or on cucurbits, alfalfa, or clover. The seeds of pumpkins and squash could be diverted to human consumption and successive cuttings of alfalfa and clover for animal feed could be taken following harvest for seed. Consequently, the uses on cucurbits, alfalfa, and clover are considered food uses requiring the submission of residue data in support of appropriate tolerances.

TOXICOLOGY DATA USED TO EVALUATE TOLERANCES

The toxicology data considered in support of the tolerances include a chronic feeding study in purebred beagle dogs with a NOEL of 900 ppm, a rabbit and rat teratology study with a teratogenic NOEL for rabbits of 10 mg/kg/day, and teratogenic NOEL for rats greater than 105 mg/kg/day.

Because of the absence of adequate reproduction and chronic feeding studies in the rodents, a provisional acceptable daily intake (PADI) was established using a 2-year dog feeding study with a NOEL of greater than 900 ppm (22.5 mg/kg) HDT. Using a conservative thousandfold safety factor, the PADI was calculated to be 0.225 mg/kg/day. The provisional maximum permitted intake (PMPI) for a 60 kg human is calculated to be 1.3500 mg/day. The current theoretical maximum residue contribution (TMRC) for propargite, based on the published and the Agency approved tolerances is 1.5153 mg/day for a 1.5 kg diet, and the PADI utilized is 112 percent.

Although exceeding the PADI by 12 percent is of concern to the Agency, the public should be in no danger from dietary exposure while the Agency awaits residue data. The TMRC is based on the assumption that 100 percent of the crop for which a tolerance is established is treated with propargite. Of the major uses of propargite - on almonds, grapes, and cotton - the actual percentages of crops treated are 70 to 80, 35 to 90, and less than 5, respectively. The estimated percentage of the remaining crops treated with propargite is low. Therefore, selectively adjusting the TMRC to reflect the actual percentage of crop treated would reduce the TMRC to a percentage level of the PADI significantly lower than 112 percent.

The Agency recognizes that the statistical significance of the Food and Drug Administration's market basket survey is limited, but results from this monitoring can function as an indicator of immediate dietary exposure risks. Monitoring activity for the past several years shows that, although present, propargite residues are consistently below established tolerances, which further alleviates the Agency's immediate concern over propargite's use while collecting data for a tolerance reassessment.

In summary, preliminary information suggests that actual dietary exposure to propargite is much lower than that predicted by the TMRC. Since the TMRC, however, does exceed the PADI by 12 percent, new tolerances/uses will not be issued if they contribute significantly to the TMRC and/or result in a significant increase in dietary exposure.

TOLERANCES ISSUED

The following tables list the present commodity tolerances for propargite.

PRESENT TOLERANCES FOR PROPARGITE

	TOLERANCE (PPM)			
COMMODITY	U.S.	Canada	Mexico	Internatl. (Codex)
Almonds	0.1	-	-	0.1
Almonds, hulls	55.0	-	-	55.0
Apples	3.0	3.0	3.0	5.0
Apple pomace (dried)	80.0	-	-	-
Apricots	7.0	-	-	-
Beans, dry	0.2	5.0	0.2	0.2
Beans, succulent	20.0	-	-	20.0
Cattle, fat	0.1	-	-	-
Cattle, meat by-products (MBYP)	0.1	-	-	-
Cattle, meat	0.1	-	-	-

PRESENT TOLERANCES FOR PROPARGITE
(Continued)

COMMODITY	TOLERANCE (PPM) U.S.	Canada	Mexico	Internatl. (Codex)
Citrus pulp (dried)	40.0	-	-	-
Corn, fodder	10.0	-	10.0	10.0
Corn, forage	10.0	-	10.0	10.0
Corn, fresh (incl. sweet) (K+CWHR*)	0.1	-	0.1	0.1
Corn, grain	0.1	-	0.1	0.1
Cottonseed	0.1	-	0.1	0.1
Cranberries	10.0	5.0	-	10.0
Eggs	0.1	-	-	0.1
Figs (fresh)	3.0	-	3.0	2.0
Figs (dried)	9.0	-	9.0	-
Goats, fat	0.1	-	-	-
Goats, meat	0.1	-	-	-
Goats, MBYP	0.1	-	-	-
Grapefruit	5.0	5.0	2.0	5.0
Grapes	10.0	7.0	10.0	10.0
Grape pomace (dried)	40.0	-	-	-
Hogs, fat	0.1	-	-	-

* Kernel plus cob with the husk removed.

PRESENT TOLERANCES FOR PROPARGITE
(Continued)

COMMODITY	TOLERANCE (PPM) U.S.	Canada	Mexico	Internatl. (Codex)
Hogs, meat	0.1	-	-	-
Hogs, MBYP	0.1	-	-	-
Hops	15.0	-	-	-
Hops (dried)	30.0	30.0	-	30.0
Horses, fat	0.1	-	-	-
Horses, MBYP	0.1	-	-	-
Horses, meat	0.1	-	-	-
Lemons	5.0	5.0	2.0	5.0
Milkfat (0.08 in whole milk)	2.0	-	-	0.1
Mint	50.0	-	-	50.0
Nectarines	4.0	-	-	7.0
Oranges	5.0	5.0	2.0	5.0
Peaches	7.0	7.0	7.0	7.0
Peanuts	0.1	0.1	1.0	0.1
Peanuts, forage	10.0	-	10.0	10.0
Peanuts, hay	10.0	-	10.0	10.0
Peanuts, hulls	10.0	-	-	-
Pears	3.0	3.0	3.0	5.0

PRESENT TOLERANCES FOR PROPARGITE
(Continued)

	TOLERANCE (PPM)			
COMMODITY	U.S.	Canada	Mexico	Internatl. (Codex)
Plums (fresh prunes)	7.0	5.0	-	7.0
Potatoes	0.1	-	0.1	0.1
Poultry, fat	0.1	-	-	0.1
Poultry, MBYP	0.1	-	-	0.1
Poultry, meat	0.1	-	-	-
Raisins	25.0	-	-	-
Sheep, fat	0.1	-	-	-
Sheep, MBYP	0.1	-	-	-
Sheep, meat	0.1	-	-	-
Sorghum, fodder	10.0	-	10.0	10.0
Sorghum, forage	10.0	-	10.0	10.0
Sorghum, grain	10.0	-	10.0	5.0
Strawberries	7.0	7.0	7.0	7.0
Tea (Dry)	10.0	0.1	-	5.0
Walnuts	0.1	-	0.1	0.1

3. REGULATORY POSITION AND RATIONALE

This section of the Standard states and explains the basis for Agency positions regarding the need for additional data and labeling requirements. It also provides directives for the proper labeling of manufacturing-use and end-use products.

3.1 STATEMENTS OF POSITIONS AND RATIONALES

1. None of the risk criteria listed in 40 CFR 154.7 has been exceeded for propargite. Therefore, no referral to Special Review is being made at this time.

> Rationale: The available laboratory data indicate that propargite is very highly toxic to fish. Terrestrial residue analysis and aquatic runoff modeling further indicate that certain use patterns of propargite could result in exposure of certain aquatic organisms (including endangered species) to potentially hazardous levels of the pesticide. The Agency has not received any reports, however, on fish kills associated with the use of propargite during its use history. Additional data are needed before the Agency can complete a full assessment of this hazard potential. After the evaluation of required environmental fate data, chronic fish and aquatic invertebrate data, and residue level monitoring studies, the Agency will determine whether to initiate a public interim review process by placing the chemical in Special Review.

2. The Agency will not issue tolerances for significant new food uses.

> Rationale: Until such time as reassessment of the present tolerances for propargite is completed, the Agency will not issue tolerances for significant new food uses. The Agency needs additional residue and metabolism data in order to characterize the nature of residues in plants and animals. The Agency also needs processing data on certain crops to determine actual dietary exposure.

3. The Agency is imposing an interim 6-month rotational crop restriction on product labels. (Refer to section 3.4 for labeling requirements.)

> Rationale: There is no rotational crop restriction on current labels with propargite as the active ingredient.

Rotational crop data that has been submitted, however, while unacceptable, does suggest that a restriction will be needed, since these data show potential for uptake of propargite residue in follow-up crops. Therefore, on an interim basis, a 6-month restriction is being imposed. Upon receipt and evaluation of acceptable rotational crop data, the Agency will determine whether a different rotational crop restriction or rotational crop tolerances are needed.

4. The Agency is imposing an interim label restriction prohibiting the use of water leaving propargite treated cranberries fields to irrigate crops grown for food or feed. (Refer to section 3.4 for labeling requirements.)

Rationale: The Agency does not have data to determine residue uptake and levels in representative crops that could be irrigated with water from a cranberry field treated with propargite. Such studies are needed to establish label restrictions to prevent residues in irrigated crops and/or to provide information for a determination as to whether tolerances may be needed in the irrigated crops.

5. The Agency is imposing an interim 3-day reentry interval for strawberries and 7-day reentry interval for all other agricultural uses on the label. This restriction will be reevaluated upon receipt and review of adequate reentry data. (Refer to section 3.4 for labeling requirements.)

Rationale: There is a Federally required 7-day reentry interval that was requested by the registrant for use ot propargite on grapes and avocadoes. Incidents of severe dermatitis in workers reentering fields treated with the propargite indicate that a need for fieldworker protection does exist for crops other than grapes and avocadoes. Human exposure tends to be highest in tall crops, such as tree fruit, because of the amount of foliage contacted during work. The Agency perceives that the need for protection is somewhat less for low crops such as strawberries, and believes that a 3-day pre-harvest interval provides an adequate margin of safety during the interim until reentry data are submitted.

6. The Agency is requiring endangered species labeling for certain uses of propargite. (Refer to section 3.4 for labeling requirements.)

Rationale: The Agency has evaluated the potential for propargite to jeopardize endangered species in areas in which this pesticide is used. Analyses of terrestrial residue and aquatic runoff modeling indicate that certain use patterns of propargite could result in a hazard to endangered/threatened species.

7. Precautionary labeling for aquatic organisms are being required for aquatic and non-aquatic uses. (Refer to section 3.4 for labeling requirements.)

Rationale: Due to the high acute toxicity of propargite to aquatic organisms, the Agency is concerned about the direct and indirect hazards propargite may pose to aquatic environments. (Refer to section 2.4 for information on risks to endangered species.)

8. Although the Agency is requiring precautionary labeling for aquatic organisms, it will not restrict certain uses of propargite to certified applicators at this time.

Rationale: Available data indicate that propargite is highly toxic to fish and aquatic invertebrates (including freshwater and estuarine organisms). Analysis of terrestrial residue and aquatic runoff modeling indicate that certain use patterns of propargite could result in a hazard to aquatic organisms, however, the Agency has not received any reports on fish kills following propargite application during its long use history. Fish, invertebrate and estuarine/marine organism tests, using an end-use product, plus environmental fate data are required to complete the hazard assessment for aquatic organisms. Should additional data demonstrate that propargite poses risks to aquatic organisms that could be mitigated by increased controls in application, restricted use classification may be required.

9. The Agency is requiring data on cucurbits, alfalfa, and clover, which are registered under section 24(c) Special Local Need registrations.

Rationale: No tolerances exist for the seed treatment uses of propargite because they were not required at the time these uses were registered by the U.S. Department of Agriculture (USDA). USDA had concluded, based upon the analytical methodology available at the time, that no residues were or would be present in plants as a result of seed treatment by any pesticide. Thus, all seed treatments were considered to be non-food uses. EPA now considers that tolerances should be established for all seed treatment uses unless it can be shown by data from a radiolabeled chemical study that no uptake of residues occurs from the treated seeds into the aerial or edible portion of the growing crop.

10. The Agency will require that protective clothing be worn by mixer/loaders and applicators. Product labels must be revised to specify that mixer/loaders wear goggles or a face shield, chemical-resistant apron, mid-forearm to elbow-length chemical resistant gloves, a long-sleeve shirt, and long pants. Applicators will be required to wear a long-sleeve shirt and long pants or coveralls, and a wide-brimmed hat during upward spraying. (Refer to section 3.4 for labeling requirements.)

Rationale: Protective clothing is necessary to minimize exposure to workers during mixing, loading, and applying propargite or during early reentry to treated fields. There is definitely a risk of exposure to this pesticide, and, while insufficient data exists to establish its dermal sensitization potential, numerous cases of skin irritation have been reported related to its use.

11. The Agency will require quantitive data on the permeability and breakthrough times of various materials used for chemical resistant gloves. This data will be required for all liquid formulations of propargite.

Rationale: Because of the potential dermal irritation and skin sensitization hazard to handlers of propargite, the incident history, and use patterns of propargite, there is a need to know which materials are most effective in protection against propargite contamination. Quantitative permeation and breakthrough time data are not available to adequately assess the protective value of various glove materials that are currently available. The generation and submission of these data will aid the Agency in determining which types(s) of material(s) to specify for the chemical resistant gloves.

12. While the data gaps are being filled, currently registered manufacturing-use products (MPs) and end-use products (EPs) containing propargite as the sole active ingredient may be sold, distributed, formulated, and used in the United States, subject to the terms and conditions specified in this Standard. Registrants must provide or agree to develop additional data, as specified in Tables A and B of the Data Appendices, in order to maintain existing registrations.

Rationale: While the currently available data are not adequate to support the registration of any registered propargite product unconditionally under FIFRA section 3(c)(5), the available data do support the conditional registration of all of the currently registered products. Under FIFRA, the Agency does not normally cancel or withhold registration simply because data are missing or inadequate (see FIFRA sections 3(c)(2)(B) and (3)(c)(7)) unless available data indicate that use of the product is likely to cause unreasonable adverse effects on the environment. Issuance of this Standard provides a mechanism for identifying data needs. These data will be reviewed and evaluated. The Agency will then determine whether additional regulatory changes are necessary.

13. The Agency will issue registrations for substantially similar products. New uses, however, will be issued only on a case-by-case basis after considering the effects on the theoretical maximum residue concentrations (TMRC) and the maximum permitted intake (MPI).

Rationale: The Administrator has the authority under FIFRA sections 3(c)(2)(B) and 3(c)(7) to require registrants to provide data needed to support new or continuing registrations.

3.2 CRITERIA FOR REGISTRATION

To be registered or reregistered under this Standard, products must contain propargite as the sole active ingredient, bear required labeling, and conform to the product composition, acute toxicity limits, and use pattern requirements listed in this section.

3.3 ACCEPTABLE RANGES AND LIMITS

Product Composition Standard: To be registered or reregistered under this Standard, manufacturing-use products (MPs) must contain propargite as the sole active ingredient. Each MP formulation proposed for registration must be fully described with an appropriate certification of limits, stating maximum and minimum amounts of the active ingredient and inert ingredients that are present in products, as well as impurities found at greater than 0.1 percent.

Acute Toxicity Limits: The Agency will consider registration of technical grade and MPs containing propargite provided that the product labeling bears appropriate precautionary statements for the acute toxicity category in which each product is placed.

Use Patterns: To be registered under this Standard, MPs may be labeled for formulation into end-use products (EPs) only for the commodities listed below:

TERRESTRIAL FOOD CROPS
(Agricultural Crops)

Almonds
Apples
Apricots
Avocadoes(post-harvest)
Beans (green, dry, and lima)
Cherries
Corn, field
Corn, sweet
Cotton
Figs
Grapefruit
Grapes
Hops
Lemons
Mint
Nectarines
Oranges
Peaches
Peanuts
Pears
Plums
Potatoes
Prunes
Sorghum, milo
Strawberries
Walnuts

AQUATIC FOOD CROPS
(Agricultural Crops)

Cranberries

TERRESTRIAL NON-FOOD CROPS
(Ornamental Plants)

Carnations
Chrysanthemums
Roses

GREENHOUSE NON-FOOD CROPS
(Ornamental Plants)

Carnations
Chrysanthemums
Roses

3.4 REQUIRED LABELING

All MPs (and EPs, if covered by this Standard) must bear appropriate labeling as specified in 40 CFR 162.10. Appendix II contains information on label requirements. No MP or EP containing propargite may be released for shipment by a registrant or producer of that product 12 months after the registrant's or producer's receipt of this Registration Standard, unless the product bears an EPA-approved amended label that complies with this Standard. No MP or EP containing propargite may be distributed, sold, offered for sale, held for sale, shipped, delivered for shipment, or received and (having so received) delivered or offered to be delivered by any person 24 months after issuance of this Standard, unless the product bears an EPA-approved amended label that complies with this Standard.

The following information must appear on the labeling.

INGREDIENTS STATEMENT

The ingredient statement for MPs must list the active ingredient as:

> Propargite, 2-(p-tert-butylphenoxy)cyclohexyl
> 2-propynyl sulfite

PRECAUTIONARY STATEMENTS

This subsection describes the precautionary statements that must appear on the labels of MPs or EPs.

Manufacturing-Use Products

1. Labels for MPs must bear the following statement under the heading "Environmental Hazards":

> "This pesticide is toxic to fish. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or public waters unless this product is specifically identified and addressed in an NPDES permit. Do not discharge effluent containing this product into sewer systems without previously notifying the sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA."

2. All MPs must bear the following protective clothing statement:

> "Mixer/loaders must wear goggles or a face shield, chemical-resistant apron, long-sleeved shirt and long pants or coveralls, and mid-forearm to elbow length chemical-resistant gloves when mixing, loading, or otherwise handling the concentrate."

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The following information must appear on the labeling.

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2. All MPs must bear the following protective clothing statement:

> "Mixer/loaders must wear goggles or a face shield, chemical-resistant apron, long-sleeved shirt and long pants or coveralls, and mid-forearm to elbow length chemical-resistant gloves when mixing, loading, or otherwise handling the concentrate."

3. The directions for use must include the following statement:

> "Formulators using this product are responsible for EPA registrations for their formulated product(s)."

End-Use Products

1. All EPs for use on cranberries must bear the following statement under the heading "Environmental Hazards":

> "This pesticide is toxic to fish. Do not apply directly to water except as specified on this label. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water by cleaning of equipment or disposal of wastes."

2. All EPs for terrestrial food and non-food use must bear the following statement under the heading "Environmental Hazards":

> "This pesticide is toxic to fish. Do not apply directly to water or wetlands (swamps, bogs, marshes, and potholes). Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water by cleaning of equipment or disposal of wastes."

3. In the absence of crop rotation data, the following crop restriction must be placed on all EPs that may be used in a situation where rotation with crops used for food or feed that are not registered with propargite may occur:

> "Do not plant any food or feed crop in rotation within 6 months after last application of propargite unless the crop is a registered use for propargite."

4. All EPs registered for use on crops whose culture requires hand labor must bear the following worker reentry statement:

> "Do not allow worker reentry into treated fields within 3 days of application, for strawberries, and within 7 days, for all other agricultural uses of propargite, unless appropriate protective clothing is worn. Protective clothing means at least a hat or other suitable head covering, a long-sleeved shirt and long-legged trousers or a coverall-type garment (closely woven fabric covering the body, including the arms and legs), chemical-resistant gloves, socks, and shoes."

5. All EPs registered for use on cranberries must bear the following irrigated crops restriction:

> "Do not use water leaving propargite treated fields to irrigate crops used for food or feed that are not registered for use with propargite."

6. All EPs registered for use on terrestrial food, aquatic food and nonfood crops must bear the following protective clothing statement:

> "Mixer/loaders must wear goggles or a face shield, chemical-resistant apron, long-sleeve shirt, long pants, and mid-forearm to elbow length chemical-resistant gloves. Applicators must wear a long-sleeve shirt and long pants, and chemical-resistant gloves while applying this pesticide. Applicators must also wear a wide-brimmed hat during upward directed spraying.
>
> Any article of clothing worn while applying product must be cleaned before re-use. Clothing should be laundered separately from household articles. Clothing that has been drenched or has otherwise absorbed concentrated pesticide must be disposed of in a sanitary landfill, incinerated, or burned if allowed by State and local authorities."

7. All EPs registered for use on terrestrial and aquatic food crops must bear the following endangered species labeling:

> "The use of any pesticide in a manner that may kill or otherwise harm an endangered or threatened species or adversely modify their habitat is a violation of Federal laws. The use of this product is controlled to prevent death or harm to endangered or threatened species that occur in the following counties or elsewhere in their range.
>
> Before using this pesticide in the following counties, you must obtain the EPA Cropland Endangered Species Bulletin. The use of this pesticide is prohibited in these counties unless specified otherwise in the Bulletin. The EPA Bulletin is available from either your local pesticide distributor, your County Agricultural Extension Agent, the Endangered Species Specialist in your State Wildlife Agency Headquarters or the appropriate Regional Office of the U.S. Fish and Wildlife Service (FWS). THIS BULLETIN MUST BE REVIEWED PRIOR TO PESTICIDE USE."

STATE (Regional office FWS) Species	COUNTY	
ALABAMA (Atlanta, GA) Slackwater darter	LAUDERDALE LIMESTONE	MADISON
Alabama cavefish	LAUDERDALE	
Freshwater mussels	COLBERT JACKSON	MARSHALL MORGAN
ARIZONA (Albuquerque, NM) Woundfin	MOHAVE	
Gila topminnow	GRAHAM MARICOPA PIMA	PINAL SANTA CRUZ
ARKANSAS (Atlanta, GA) Freshwater mussels	CLAY CLARK CROSS LAWRENCE	RANDOLPH SHARP ST. FRANCIS
Leopard darter	POLK	
KENTUCKY (Atlanta, GA) Freshwater mussels	BALLARD EDMUNDSON JACKSON LAUREL MARSHALL	McCRACKEN PULASKI ROCKCASTLE WARREN WAYNE
MISSISSIPPI (Atlanta, GA) Bayou darter	CLAIBORNE COPIAH	
NEVADA (Portland, OR) Woundfin	CLARK	
NEW MEXICO (Albuquerque, NM) Pecos gambusia	CHAVES EDDY	
OHIO (Twin Cities, MN) Scioto madtom	CHAMPAGNE FRANKLIN LOGAN	MADISON PICKAWAY UNION
OKLAHOMA (Albuquerque, NM) Leopard dater	McCURTAIN PUSHMATAHA	
TENNESSEE (Atlanta, GA) Slackwater darter	LAWRENCE WAYNE	
Freshwater mussels	BLOUNT CLAIBORNE DECATUR FRANKLIN HANCOCK HARDIN LINCOLN LOUDON	MARSHALL MAURY RHEA ROANE SCOTT SEQUATCHIE SMITH SULLIVAN

STATE (Regional office FWS) Species	COUNTY	
TEXAS (Albuquerque, NM)		
Commanche Springs pupfish	JEFF DAVIS REEVES	
Pecos gambusia	JEFF DAVIS PECOS	REEVES
San Marcos gambusia	HAYS	
Fountain darter	HAYS	COMAL
UTAH (Denver, CO)		
Woundfin	WASHINGTON	
VIRGINIA (Newton Corners, MA)		
Freshwater mussels	LEE RUSSELL SCOTT SMYTH	TAZEWELL WASHINGTON WISE

4. PRODUCTS SUBJECT TO THIS STANDARD

All products containing the pesticide identified in section 1.1 are subject to certain requirements for data submission or changes in composition, labeling or packaging of the product. The applicable requirements depend on whether the product is a manufacturing-use or end-use product and whether the pesticide is the sole active ingredient or one ot multiple active ingredients.

4.1 MANUFACTURING-USE PRODUCTS

Manufacturing-use products containing this pesticide as the sole active ingredient are subject to

1. The restrictions (if any) upon use, composition, or packaging listed in sections 3.3 and 3.4 it they pertain to the manufacturing-use product.
2. The data requirements listed in Tables A and B[2].
3. The labeling requirements specified for manufacturing-use products in sections 3.3 and 3.4.
4. Administrative requirements (application forms, Confidential Statement of Formula, data compensation provisions) associated with reregistration.

Manufacturing-use products containing this pesticide as one of multiple active ingredients are subject to the data requirements listed in Table A.

4.2 END-USE PRODUCTS

End-use products containing this pesticide as the sole active ingredient are subject to

1. The restrictions (if any) upon use, composition, or packaging listed in sections 3.3 and 3.4 if they pertain to the end-use product.
2. If not eligible for the formulator's exemption[3], the data requirements listed in Tables A and B.

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[2] Footnotes are explained at the end of section 4.

4. The labeling requirements specified for end-use products in section 3.4.

End-use products containing this pesticide as one of multiple active ingredients are subject to, if not eligible for the formulator's exemption, the data requirements listed in Tables A and B. (Registrants eligible for the formulator's exemption do not need to submit required data if other registrants fulfill data requirements.)

FOOTNOTES

[2] Data requirements are listed in the two tables in Appendix I of this Registration Standard. The Guide to Tables in that appendix explains how to read the tables.

Table A lists generic data requirements applicable to all products containing the pesticide subject to this Registration Standard.

Table B lists product-specific data applicable to manufacturing-use products. The data in Tables A and B need not be submitted by a producer who is eligible for the formulator's exemption for that active ingredient.

[3] If you purchase from another producer and use as the source of your active ingredient only EPA-registered products, you are eligible for the formulator's exemption for generic data concerning that active ingredient (Table A) and product-specific data for the registered manufacturing-use product you purchase (Table B).

Two circumstances nullify this exemption:

(1) If you change sources of active ingredient to an unregistered product, formulate your own active ingredient, or acquire your active ingredient from a firm with ownership in common with yours, you individually lose the exemption and become subject to the data requirements in Table A.

(2) If no producer subject to the generic data requirements in Table A agrees to submit the required data, all end-use producers lose the exemption, and become subject to those data requirements.

5. REQUIREMENT FOR SUBMISSION OF GENERIC DATA

This portion of the Registration Standard is a notice issued under the authority of FIFRA section 3(C)(2)(B). It refers to the data listed in Table A, which are required to be submitted by registrants to maintain in effect the registration of products containing this active ingredient.[4]

5.1 WHAT ARE GENERIC DATA?

Generic data pertain to the properties or effects of a particular active ingredient. Such data are relevant to an evaluation of all products containing that active ingredient regardless of whether the product contains other ingredients (unless the product bears labeling that would make the data requirements inapplicable).

Generic data may also be data on a "typical formulation" of a product. "Typical formulation" testing is often required for ecological effects studies and applies to all products having that formulation type. These are classed as generic data, and are contained in Table A.

5.2 WHO MUST SUBMIT GENERIC DATA?

All current registrants are responsible for submitting generic data in response to a data request under FIFRA section 3(c)(2)(B) (DCI Notice). EPA has decided, however, not to require a registrant who qualifies for the formulator's exemption (FIFRA section 3(c)(2)(D) and 40 CFR §152.85) to submit generic data in response to a DCI notice if the registrant who supplies the active ingredient in his product is complying with the data request.

If you are not presently eligible for a formulator's exemption, you may qualify for one if you change your source of supply to a registered source that does not share ownership in common with your firm. If you choose to change sources of supply, the Confidential Statement of Formula must identify the new source(s) and you must submit a Formulator's Exemption Statement form.

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[4] Registrations granted after issuance of this Standard will be conditioned upon submission or citation of the data listed in this Registration Standard.

If you apply for a new registration for products containing this active ingredient after the issuance of this Registration Standard, you will be required to submit or cite generic data relevant to the uses of your product if, at the time the application is submitted, the data have been submitted to the Agency by current registrants. If the required data have not yet been submitted, any new registration will be conditioned upon the new registrant's submission or citation of the required data not later than the date upon which current registrants of similar products are required to provide such data. (See FIFRA section 3(c)(7)(A).) If you thereafter fail to comply with the condition of that registration to provide data, the registration may be cancelled (FIFRA section 6(e)).

5.3 WHAT GENERIC DATA MUST BE SUBMITTED?

You may determine which generic data you must submit by consulting Table A. That table lists the generic data needed to evaluate current uses of all products containing this active ingredient, the uses for which such data are required, and the dates by which the data must be submitted to the Agency.

5.4 HOW TO COMPLY WITH DCI REQUIREMENTS

Within 90 days of your receipt of this Registration Standard, you must submit to EPA a completed copy of the form entitled "FIFRA Section 3(c)(2)(B) Summary Sheet" (EPA Form 8580-1, enclosed) for each of your products. On that form you must state which of the following six methods you will use to comply with the DCI requirements:

1. You will submit the data, and either--

   (a) Submit the existing data that you believe will satisfy the data requirements, or

   (b) State that you will secure the data or have made a contract to have any necessary studies completed within the applicable time period.

If (b) applies, you must also send a copy of your response to the Office of Compliance Monitoring's (OCM's) Laboratory Data Integrity Program. Additionally, within 90 days of a commitment to generate data, you must submit to OCM the name and location of the laboratory carrying out each required test, along with the estimated starting date for testing. You should also send to OCM a copy of the transmittal or cover letter for each final report submitted to the Agency. After the initial response has been made to a FIFRA section 3(c)(2)(B) notice, and dates or protocols have been committed to and accepted by EPA, you must submit any subsequent request for a time extension or modification in the protocol to OCM. This information should be sent to the address for OCM given in section 8.4 of this Standard.

2. You have entered into an agreement with one or more registrants to jointly develop (or share in the cost of developing) the data, but will not be submitting the data yourself. If you use this method, you must state who will submit the data on which you rely. You must also provide EPA with documentary evidence that an agreement has been formed which allows you to rely upon the data to be submitted. Such evidence may be: (a) your letter offering to join in an agreement and the other registrant's acceptance of your offer, (b) a written statement by the parties that an agreement exists, or (c) a written statement by the person who will be submitting the data that you may rely upon its submission. The Agency will also require adequate assurance that the person whom you state will provide the data is taking appropriate steps to secure it. The agreement to produce the data need not specify all of the terms of the final arrangement between the parties or a mechanism to resolve the terms.

3. You have attempted to enter into an agreement to jointly develop data, but no other registrant has accepted your offer. You request that EPA not suspend your registration for noncompliance with the DCI. EPA has determined that, as a general policy, it will not suspend the registration of a product when the registrant has in good faith sought and continues to seek to enter into a data development/cost sharing program, but the other registrants developing the data have refused to accept its offer. (If your offer is accepted, you may qualify for Option 2 above by entering into an agreement to supply the data.)

In order to qualify for this method, you must

(a) File with EPA a completed "Certification of Attempt to Enter into an Agreement with other Registrants for Development of Data" (EPA Form 8580-6, enclosed).

(b) Provide EPA with a copy of your offer to the other registrant and proof of the other registrant's receipt of your offer (such as a certified mail receipt). Your offer must, at a minimum, contain the following language or its equivalent:

"[Your company name] offers to share in the burden of producing the data required by FIFRA section 3(c)(2)(B)

> in the [name of active ingredient] Registration Standard upon terms to be agreed or failing agreement to be bound by binding arbitration as provided by FIFRA section 3(c)(2)(B)(iii)."

The remainder of your offer may not in any way attempt to limit this commitment. If the other registrant to whom your offer is made does not accept your offer, and if the other registrant informs us on a DCI Summary Sheet that he will develop and submit the data required under the DCI, then you may qualify for this option. In order for you to avoid suspension under this method, you may not later withdraw or limit your offer to share in the burden of developing the data. In addition, the other registrant must fulfill its commitment to develop and submit the data.

4. You request a waiver of the data requirement. If you believe that a data requirement does not (or should not) apply to your product or its uses, you must provide EPA with a statement of the reasons why you believe this is so. Your statement must address the specific composition or use factors that lead you to believe that a requirement does not apply. Since the Agency has carefully considered the composition and uses of pesticide products in determining that a data requirement applies, EPA does not anticipate that many waivers will be granted. A request for waiver does not automatically extend the timeframes for developing required data, and if your waiver request is denied, your registration may be suspended if you fail to submit these data.

5. You request that EPA amend your registration by deleting the uses for which the data are needed. You are not required to submit data for uses that are no longer on your label.

6. You request voluntary cancellation of the registration of your product(s) for which the data are needed.

5.5 PROCEDURES FOR REQUESTING A CHANGE IN TESTING PROTOCOL

If you will generate the required data and plan to use test procedures that deviate from (or are not specified in) either EPA's Pesticide Assessment Guidelines or the Reports of Expert Groups to the Chemicals Group, Organization for Economic Cooperation and Development (OECD) Chemicals Testing Programme, you must submit for EPA approval the protocols you propose to use.

You should submit your protocols before beginning testing and await EPA approval, because the Agency will not ordinarily accept as sufficient studies using unapproved protocols. A request for protocol approval will not automatically extend the timeframe for submission of the data, nor will extensions generally be given to conduct studies due to submittal of inappropriate protocols.

5.6 PROCEDURES FOR REQUESTING EXTENSIONS OF TIME

If you think that you will need more time to generate the data than is allowed by EPA's schedule, you may submit a request for an extension of time. Any request for a time extension that is made as an initial response to a section 3(c)(2)(B) request notice must be submitted in writing to the Product Manager listed at the end of this section and must be made before the deadline for response. Once dates have been committed to and EPA has accepted these commitments, any subsequent requests for a time extension must be submitted in writing to the Office of Compliance Monitoring.

EPA will view failure to request an extension before the response deadline as a waiver of any future claim that there was insufficient time to submit the data. While EPA considers your request, you must strive to meet the deadline for submitting the data.

The extension request should state the reasons why you believe that an extension is necessary and the steps you have taken to meet the testing deadline. Time extensions normally will not be granted due to problems with laboratory capacity or adequacy of funding, since the Agency believes that with proper planning, these can be overcome. Time extensions may be considered when joint data development is planned, or when the Agency must approve a new or modified protocol before the study can be begun.

A request for an extension does not automatically extend the timeframe for submission of the data. If EPA denies your request for a time extension and you do not submit the data as requested, EPA may begin proceedings to suspend the registrations of your products.

5.7 EXISTING STOCKS PROVISION UPON SUSPENSION OR CANCELLATION

EPA will permit continued sale and distribution of existing stocks of a pesticide product which has been suspended or cancelled if doing so would be consistent with the purposes of the Act. However, the Agency has determined that if a registration is suspended for failure to respond to a DCI request under FIFRA section 3(c)(2)(B), an existing stocks provision is not consistent with the Act. Accordingly, the Agency does not anticipate granting permission to sell or distribute existing stocks of suspended product except in rare circumstances. If you believe that your product will be suspended or cancelled and that an existing stocks provision should be granted, you have the burden of clearly demonstrating to EPA that granting such permission would be consistent with the Act. The following information must be included in any request for an existing stocks provision:

1. Explanation of why an existing stocks provision is necessary, including a statement of the quantity of existing stocks and your estimate of the time required for their sale or distribution; and

2. Demonstration that such a provision would be consistent with the provisions of FIFRA.

6. REQUIREMENT FOR SUBMISSION OF PRODUCT-SPECIFIC DATA

Under its DCI authority, EPA has determined that certain product-specific data are required to maintain your registrations in effect. Product-specific data are derived from testing using a specific formulated product, and, unlike generic data, generally support only the registration of that product. All such data must be submitted by the dates specified in this Registration Standard.

If you have a manufacturing-use product, these data are listed in Table B. In order to comply with the product-specific data requirements, you must follow the same procedures as for generic data. (See sections 5.4, 5.5, 5.6, and 5.7.) You should note, however, that product chemistry data are required for every product, and the only acceptable responses are options 1 (submit data) or 6 (cancellation of registration), listed under section 5.4.

Failure to comply with the product-specific data requirements for your products will result in suspension of the product's registration.

7. REQUIREMENT FOR SUBMISSION OF REVISED LABELING

FIFRA requires each product to be labeled with accurate, complete and sufficient instructions and precautions, reflecting the Agency's assessment of the data supporting the product and its uses. General labeling requirements are set out in 40 CFR §162.10 (see Appendix II - LABELING and SUMMARY). In addition, labeling requirements specific to products containing this pesticide are specified in section 3.4 of this Registration Standard. Applications submitted in response to this notice must include draft labeling for Agency review.

If you fail to submit revised labeling as required, which complies with 40 CFR §162.10 and the specific instructions in section 3.4, EPA may issue a Notice of Intent to Cancel the registration of your product under FIFRA section 6(b)(1).

8. INSTRUCTIONS FOR SUBMISSION

The following submission instructions pertain to propargite manufacturing-use, end-use, and intrastate product registrations.

8.1 MANUFACTURING-USE PRODUCTS

For manufacturing-use products containing propargite as the sole active ingredient--

1. Within 90 days from receipt of this document, you must submit to the Product Manager in the Registration Division for each product subject to this Registration Standard:

   (a) The "FIFRA Section 3(c)(2)(B) Summary Sheet" (EPA Form 8580-1), with appropriate attachments.[5]

   (b) Confidential Statement of Formula (EPA Form 8570-4).

   (c) Formulator's Exemption Statement, if applicable.

   (d) Product-Specific Data Report (EPA Form 8580-4).

   (e) Evidence of compliance with data compensation requirements of FIFRA section 3(c)(1)(D). Refer to 40 CFR 152.80 - 152.99.

2. Within 12 months from receipt of this document, you must submit to the Product Manager:

   (a) Two copies of any required product-specific data (See Table B).

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[5] If on the Summary Sheet, you either (a) commit to develop the data, (b) present arguments that a data requirement is not applicable or should be waived, or (c) submit protocols or modified protocols for Agency review, you must submit a copy of the Summary Sheet (and any supporting information) to the OCM, which will be monitoring the data generated in response to this notice. This submission is in addition to responding to the Product Manager, and should be submitted to the OCM at the address given at the end of this section. (Actual studies are not to be submitted to the OCM.)

(b) Three copies of draft labeling, including the container label and any associated supplemental labeling. Labeling should be either typewritten text on 8-1/2 x 11 inch paper or a mockup of the labeling suitable for storage in 8-1/2 x 11 files. The draft label must indicate the intended colors of the final label. clear indication of the front panel of the label, and the intended type sizes of the text.

3. Within the times set forth in Table A, you must submit to the Registration Division all generic data, unless you are eligible for the formulator's exemption. If for any reason, any test is delayed or aborted so that the agreed schedule cannot be met, immediately notify the Product Manager and the Office of Compliance Monitoring of the problem, the reasons for the problem, and your proposed course of action.

For manufacturing-use products containing propargite in combination with other active ingredients--

1. Within 90 days from receipt of this document, you must submit to the Product Manager in the Registration Division:

   (a) FIFRA section 3(c)(2)(B) Summary Sheet, with appropriate attachments[5] (EPA form 8580-1).

   (b) Confidential Statement of Formula (EPA Form 8570-4).

   (c) Formulator's Exemption Statement, if applicable.

2. Within the timeframes set forth in Table A, you must submit to the Registration Division all generic data, unless you are eligible for the formulator's exemption. If for any reason any test is delayed or aborted so that the agreed schedule cannot be met, immediately notify the Product Manager and the OCM of the problem, the reasons for the problem, and your proposed course of action.

8.2 END-USE PRODUCTS

For end-use products containing propargite alone or in combination with other active ingredients--

1. Within 90 days from receipt of this document, you must submit to the Product Manager in the Registration Division:

   (a) FIFRA Section 3(c)(2)(B) Summary Sheet, with appropriate attachments[5] (EPA Form 8580-1).

(b) Confidential Statement of Formula (EPA Form 8570-4).

(c) Formulator's Exemption Statement, if applicable.

2. Within 12 months from receipt of this document you must submit to the Product Manager three copies of draft labeling, including the container label and any associated supplemental labeling. Labeling should be either typewritten text on 8-1/2 x 11 inch paper or a mockup of the labeling suitable for storage in 8-1/2 x 11 files. The draft labeling must indicate the intended colors of the final label, clear indication of the front panel of the label, and the intended type sizes of the text. End-use product labeling must comply specifically with the instructions in section 3.4.

8.3 INTRASTATE PRODUCTS

Intrastate products containing propargite either as sole active ingredient or in combination with other active ingredients are being called in for full Federal registration. Producers of these products are being sent a letter instructing them how to submit an application for registration.

8.4 WHERE TO SEND REQUIRED INFORMATION

The required information must be submitted to the following address:

George T. LaRocca, PM-15
Registration Division (TS-767C)
Office of Pesticide Programs
Environmental Protection Agency
401 M St., SW
Washington, DC 20460

The address for submissions to the Office of Compliance Monitoring is:

Laboratory Data Integrity Program
Office of Compliance Monitoring (EN-342)
Environmental Protection Agency
401 M St., SW
Washington, D.C. 20460

I. DATA APPENDICES

GUIDE TO TABLES

Tables A, B, and C contain listings of data requirements for the pesticides covered by this Registration Standard.

Table A contains generic data requirements that apply to the pesticide in all products, including data requirements for which a "typical formulation" is the test substance.

Table B contains product-specific data requirements that apply only to a manufacturing use product.

Table C contains product-specific data requirements that apply only to an end use product.

The data tables are generally organized according to the following format:

1. Data Requirement (Column 1). The data requirements are listed in the order in which they appear in 40 CFR Part 158. The reference numbers accompanying each test refer to the test protocols set out in the Pesticide Assessment Guidelines, which are available from the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161.

2. Test Substance (Column 2). This column lists the composition of the test substance required to be used for the test, as follows:

TGAI = Technical grade of the active ingredient
PAI = Pure active ingredient
PAIRA = Pure active ingredient, radio labeled
TEP = Typical end use formulation
MP = Manufacturing use product
EP = End use product

Any other test substances, such as metabolites, will be specifically named in Column 2 or in footnotes to the table.

3. Use pattern (Column 3). This column indicates the use patterns to which the data requirement applies. Use patterns are the same as those given in 40 CFR Part 158. The following letter designations are used for the given use patterns:

A = Terrestrial, food
B = Terrestrial, non-food
C = Aquatic, food
D = Aquatic, non-food
E = Greenhouse, food
F = Greenhouse, non-food
G = Forestry
H = Domestic outdoor
I = Indoor

Any other designations will be defined in a footnote to the table.

4. Does EPA have data? (Column 4). This column indicates one of three answers:

YES - EPA has data in its files that completely satisfy this data requirement. These data may be cited by other registrants in accordance with data compensation requirements of Part 152, Subpart E.

PARTIALLY - EPA has some data in its files, but such data do not fully satisfy the data requirement. In some cases, the Agency may possess data on one of two required species, or may possess data on one test substance but not all. The term may also indicate that the data available to EPA are incomplete. In this case, when the data are clarified, or additional details of the testing submitted by the original data submitter, the data may be determined to be acceptable. If this is the case, a footnote to the table will usually say so.

NO - EPA either possesses no data which are sufficient to fulfill the data requirement, or the data which EPA does possess are flawed scientifically in a manner that cannot be remedied by clarification or additional information.

5. Bibliographic citation (Column 5). If the Agency has acceptable data in its files, this column lists the identifying number of each study. This normally is the Master Record Identification (MRID) number, but may be a GS number if no MRID number has been assigned. Refer to the Bibliography Appendices for a complete citation of the study.

6. Must additional data be submitted? (Column 6). This column indicates whether the data must be submitted to the Agency. If column 3 indicates that the Agency already has data, this column will usually indicate NO. If column 3 indicates that the Agency has only partial data or no data, this column will usually indicate YES. In some cases, even though the Agency does not have the data, EPA will not require its submission because of the unique characteristics of the chemical; because data on another chemical can be used to fulfill the data requirement; or because the data requirement has been waived or reserved. Any such unusual situations will be explained in a footnote to the table.

7. Timeframe for submission (Column 7). If column 5 requires that data be submitted, this column indicates when the data are to be submitted, based on the issuance date of the Registration Standard. The timeframes are those established either as a result of a previous Data Call-In letter, or standardized timeframes established by PR Notice 85-5 (August 22, 1985).

8. Footnotes (at the end of each table). Self-explanatory.

TABLE A
GENERIC DATA REQUIREMENTS FOR PROPARGITE

Data Requirement	Test Substance	Use Patterns	Does EPA Have Data?[1]/	Bibliographic Citation	Must Additional Data be Submitted?	Timeframe for Data Submission
§158.120 Product Chemistry						
Product Identity and Composition						
61-1 - Product Identity and Disclosure of Ingredients	TGAI	A,B,C,F	No		Yes	6 Months
61-2 - Description of Beginning Materials and Manufacturing Process	TGAI	A,B,C,F	No		Yes	6 Months
61-3 - Discussion of Formation of Impurities	TGAI	A,B,C,F	No		Yes	6 Months
Analysis of Product Ingredients						
62-1 - Preliminary Analysis of Product Samples	TGAI	A,B,C,F	No		Yes	12 Months
Physical and Chemical Characteristics						
63-2 - Color	TGAI	A,B,C,F	No		Yes	6 Months
63-3 - Physical State	TGAI	A,B,C,F	No		Yes	6 Months
63-4 - Odor	TGAI	A,B,C,F	No		Yes	6 Months
63-5 - Melting Point	TGAI	A,B,C,F	No		Yes	6 Months
63-6 - Boiling Point	TGAI	A,B,C,F	No		Yes	6 Months

TABLE A
GENERIC DATA REQUIREMENTS FOR PROPARGITE

Data Requirement	Test Substances	Use Patterns	Does EPA Have Data?[1]	Bibliographic Citation	Must Additional Data be Submitted?	Timeframe for Data Submission
§158.120 Product Chemistry (cont'd)						
63-7 - Density, Bulk Density, or Specific Gravity	TGAI	A,B,C,F	No		Yes	6 Months
63-8 - Solubility	TGAI or PAI	A,B,C,F	No		Yes	6 Months
63-9 - Vapor Pressure	TGAI or PAI	A,B,C,F	No		Yes	6 Months
63-10 - Dissociation Constant	TGAI or PAI	A,B,C,F	No		Yes	6 Months
63-11 - Octanol/Water Partition Coefficient	PAI	A,B,C,F	No		Yes	6 Months
63-12 - pH	TGAI	A,B,C,F	No		Yes	6 Months
63-13 - Stability	TGAI	A,B,C,F	No		Yes	6 Months
Other Requirement						
64-1 - Submittal of Samples	TGAI or PAI	A,B,C,F	No		Reserved[2]	

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[1] Although product chemistry data may have been submitted in the past, the Agency has determined that these data must be resubmitted for each pesticide. New requirements have been introduced and previously submitted data must be updated. Therefore, bibliographic citations for the old data are not applicable.

[2] If samples are needed, the Agency will request them.

TABLE A
GENERIC DATA REQUIREMENTS FOR PROPARGITE

Data Requirement	Test Substances[1]/	Does EPA Have Data?	Bibliographic Citation	Must Additional Data be Submitted?	Timeframe for Data Submission[2]/[5]/
§158.125 Residue Chemistry					
171-4 - Nature of Residue (metabolism)[43]/ - Residue Studies					
o Plants	PAIRA	Partially	00025749,00029103 00130618	Yes[3]/	18 Months
o Livestocks	PAIRA	Partially	00112360	Yes[4]/	18 Months
171-4 - Residue Analytical Method[43]/					
o Plant Residue	TGAI and Metabolites	Yes	00025751,00036033, 00037347,00112355, 00112359,00112361, 00112363,00112365	No[6]/	
o Animal Residues	TGAI and Metabolites	Yes	00025751,00036033, 00037347,00112355, 00112359,00112361, 00112363,00112365	No[6]/	
o Storage Stability Data	TGAI and Metabolites	No		Yes[7]/	15 Months
- Magnitude of Residue[43]/ - Residues Studies for Each Food Use					
- Root and Tuber Vegetables[8]/ Group	TEP				

TABLE A
GENERIC DATA REQUIREMENTS FOR PROPARGITE

Data Requirement	Test Substances[1]/	Does EPA Have Data?	Bibliographic Citation	Must Additional Data be Submitted?	Timeframe for Data Submission[2,5]/
§158.125 Residue Chemistry (cont'd)					
171-4 - Magnitude of Residue (cont'd)					
o Potatoes	TEP	Partially	00112347,00112361	Yes[9]/	18 Months
o Legume Vegetables[10]/ Group					
Beans (dry and succulent)	TEP	Partially	00038033,00064067	Yes[11]/	18 Months
o Citrus Fruit Group[12]/					
• Grapefruit	TEP		00112347,00112361, 00112397	Yes[13]/	18 Months
o Lemons	TEP	Partially	00112360,00112408	Yes[13]/	18 Months
o Oranges	TEP	Partially	00069174,00112347, 00112360,00112397	Yes[13]/[14]/	18 Months
- Pome Fruits Group[15]/					
o Apples	TEP	Partially	00112384	Yes[13]/[16]/	18 Months
o Pears	TEP	Partially	00112345	Yes[13]/[17]/	18 Months
- Stone Fruits[18]/					
o Apricots	TEP	Partially	00112358	Yes[13]/[19]/	18 Months
o Nectarines	TEP	Partially	00112358	Yes[20]/	18 Months

TABLE A
GENERIC DATA REQUIREMENTS FOR PROPARGITE

Data Requirement	Test Substances[1/]	Does EPA Have Data?	Bibliographic Citation	Must Additional Data be Submitted?	Timeframe for Data Submission[2/][5/]
§158.125 Residue Chemistry (cont'd)					
o Peaches	TEP	Partially	00112344,00112345	Yes[13/][21/]	18 Months
o Plums (fresh prunes)	TEP	Partially	00067553,00112345	Yes[13/][22/]	18 Months
• Cherries	TEP	No		Yes[23/]	18 Months
- Small Fruits Group[24/]					
o Cranberries	TEP	Yes	00112400	No	
o Grapes	TEP	Partially	00048326,00006678, 00112345,00112355, 00112465	Yes[13/][25/]	18 Months
o Strawberries	TEP	Yes	00112336,00112355, 00112358	Yes[26/]	18 Months
- Tree Nuts Group[27/]					
o Almonds	TEP	Partially	00800225,00112342, 00112355	Yes[28/]	18 Months
o Walnuts	TEP	Partially	00112339,00112345, 00138427	Yes[29/]	18 Months
- Cereal Grains Group[30/]					
o Corn	TEP	Partially	00043251,00044638, 00079227,00086708, 000112361,00112401	Yes[31/]	18 Months
o Sorghum	TEP	Partially	00038032,00038036	Yes[31/]	18 Months

TABLE A
GENERIC DATA REQUIREMENTS FOR PROPARGITE

Data Requirement	Test Substances[1]/	Does EPA Have Data?	Bibliographic Citation	Must Additional Data be Submitted?	Timeframe for Data Submission[2]/[5]/
§158.125 Residue Chemistry (cont'd)					
- Forage, Fodder, and Straw[33]/ of Cereal Grains Group					
o Corn Forage, Fodder, and Silage	TEP	Partially	00044638,00079227, 00086708,00112361, 00112401	Yes[34]/	18 Months
o Sorghum Forage, Fodder, Silage and Hay	TEP	Yes	00038032,00038036	No	
- Miscellaneous Commodities					
• Avocadoes	TEP	No		Yes[35]/	18 Months
o Cottonseed	TEP	Partially	00030794,0094938, 00112363,00131893	Yes[36]/	18 Months
o Figs	TEP	Yes	00037396	No[37]/	18 Months
o Hops	TEP	Partially	00112355,00112358, 00112398	Yes[38]/	18 Months
o Mint	TEP	Yes	00112361,00138428	No	
o Peanuts	TEP	Partially	00038650,00044291, 00047994	Yes[39]/	18 Months
o Tea	TEP	No		Yes[40]/	18 Months
• Alfalfa, Clover Cucurbits (grown for seed)	TEP	No		Yes[41]	18 Months

TABLE A
GENERIC DATA REQUIREMENTS FOR PROPARGITE

Data Requirement	Test Substances[1]	Does EPA Have Data?	Bibliographic Citation	Must Additional Data be Submitted?	Timeframe for Data Submission[2][5]
§158.125 Residue Chemistry (cont'd)					
- Forage, Fodder, and Straw[33] of Cereal Grains Group					
o Corn Forage, Fodder, and Silage	TEP	Partially	00044638,00079227, 00086708,00112361, 00112401	Yes[34]	18 Months
o Sorghum Forage, Fodder, Silage and Hay	TEP	Yes	00038032,00038036	No	
- Miscellaneous Commodities					
° Avocadoes	TEP	No		Yes[35]	18 Months
o Cottonseed	TEP	Partially	00030794,0094938, 00112363,00131893	Yes[36]	18 Months
o Figs	TEP	Yes	00037396	No[37]	18 Months
o Hops	TEP	Partially	00112355,00112358, 00112398	Yes[38]	18 Months
o Mint	TEP	Yes	00112361,00138428	No	
o Peanuts	TEP	Partially	00038650,00044291, 00047994	Yes[39]	18 Months
o Tea	TEP	No		Yes[40]	18 Months
° Alfalfa, Clover Cucurbits (grown for seed)	TEP	No		Yes[41]	18 Months

TABLE A
GENERIC DATA REQUIREMENTS FOR PROPARGITE

Data Requirement	Test Substances[1]	Does EPA Have Data?	Bibliographic Citation	Must Additional Data be Submitted?	Timeframe for Data Submission[2][5]
§158.125 Residue Chemistry (cont'd)					
- Magnitude of the Residues[43] in Meat, Milk, Poultry, and Eggs	TGAI or Plant Metabolites	Partially	00112360	Yes[42]	18 Months

TABLE A
GENERIC DATA REQUIREMENTS FOR PROPARGITE

FOOTNOTES FOR PREVIOUS PAGES

§158.125 Residue Chemistry

1/ Composition: TGAI = Technical grade of the active ingredient, PAIRA = Pure active ingredient, radiolabeled; TEP = Typical end-use product; EP = End-use product.

2/ Due dates refer to number of months following receipt of the Guidance Document or as otherwise indicated.

3/ Data must be submitted depicting the uptake, distribution, and metabolism of ^{14}C-labeled propargite in representative mature crops, preferably an orchard tree fruit, potatoes, and corn grain and forage, following foliar application at a rate sufficiently high to permit ^{14}C-residue characterization.

Representative samples from the above-described tests must also be analyzed using accepted enforcement methods to ascertain that these methods will determine all possible metabolites of concern.

4/ Metabolism studies utilizing ruminants and poultry must be submitted. Animals must be dosed for a minimum of three (3) days with ring-labeled [^{14}C] propargite at a level sufficient to make residue identification and quantification possible. Milk and eggs must be collected twice daily during the dosing period. Animals must be sacrificed within 24 hours of the final dose. The distribution and characterization of residues must be determined in milk, eggs, liver, kidney, muscle, and fat.

Representative samples from the above described tests must also be analyzed by current enforcement methods to ascertain their validity.

5/ Progress reports on metabolism data storage stability and crop field trials is required 9 months after receipt of this Guidance Document.

6/ If the requested data regarding the nature of the residue in plants and animals reveal additional metabolites of toxicoligical concern additional analytical methods for data collection and enforcement may be required.

7/ Storage intervals and conditions of storage of samples used to support all established tolerances for residues must be submitted. These data must be accompanied by data depicting the percent decline in residues at the times and under the conditions specified.

All residue data requested in this standard must be accompanied by the data regarding storage length and conditions of storage of samples analyzed. These data must be accompanied by the data depicting the stability of residues under the conditions and for the time intervals specified.

TABLE A
GENERIC DATA REQUIREMENTS FOR PROPARGITE

FOOTNOTES FOR PREVIOUS PAGES (continued)

§158.125 Residue Chemistry

8/ A crop group tolerance is not appropriate at this time since residue data and proposed usesd are required for two additional group members (sugar beets and turnips).

9/ Data on processed products of potatoes, depicting residues in granules, chips, and dried potatoes processed from potatoes bearing measurable weathered residues must be submitted. If residues are found to concentrate upon processing, appropriate food/feed additive tolerances must be proposed.

10/ A crop group tolerance is not appropraite at the present time since residue data and proposed uses are required for peas (one succulent and one dried) and soybeans.

11/ Additional data must be submitted to assess the established tolerances for residues in or on dry beans since no data were submitted reflecting use of the 30% WP being used in California under SLN CA-830025. The data must be submitted from tests conducted in California in which dry beans are harvested 28 days after the last of five applications of the 30% WP formulation at 2.25 lb ai/A, applied in a minimum of 10 gal water.

12/ A crop group tolerance is not appropriate at the present time since additional residue data are required on grapefruits, oranges and lemons.

13/ Additional data reflecting residue trials using all of the different formulations (CR, 30W, etc) to be used on grapefruit, lemons, oranges, apples, pears, apricots, peaches, plums (fresh prunes), grapes are required. These studies should reflect the maximum proposed use, minimum pre-harvest interval (PHI's), low volume sprays (if desired) and trials in all geographical area where the subject formulations are to be used. Refer to other footnotes specific to the above crops for additional data requirements.

14/ Data depicting residues in dried pulp, oil, molasses, and juice processed from oranges bearing measureable weathered residues must be submitted. Upon receipt of these data, the established food/feed additive tolerance for dried citrus pulp will be evaluated and appropriate food/feed additive tolerances will be proposed for oil, molasses, and juice.

15/ A crop group tolerance is not appropriate at the present time since additional data is required to support the established tolerances for residues in/on apples and pears.

TABLE A
GENERIC DATA REQUIREMENTS FOR PROPARGITE

FOOTNOTES FOR PREVIOUS PAGES (continued)

§158.125 Residue Chemistry

16/ The established tolerance must be amendec based on appropriate supporting data reflecting residues likely to result in or on apples harvested 7 days following three foliar applications using the 5 lb/gal EC formulation at 3.75 lb ai/A. Data must also be submitted reflecting residues in or on applies harvested 7 days following three foliar applications using the 30% WP formulation at 3.6 lb ai/A. Tests must be conducted in WA, NY, MI, CA, and VA which comprise States producting ca. 69% of the total U.S. apple crop (Agricultural Statistics (1984), p. 187).

Data must be submitted reflecting residues in dehydrated apple pomace processed from apples bearing measurable weathered residues. If residues are found to concentrate in deydrated apple pomace an appropriate feed additive tolerance must be proposed.

17/ Data reflecting residues of propargite in or on pears treated with multiple foliar and postharvest applications using the 30% WP formulation at 2.25 lb ai/A must be submitted. The registrant must propose a maximum number of applications or the maximum seasonal use rate and submit data supporting such use. Tests must be conducted in WA which represents 60.6% of the U.S. pear production (Agricultural Statistics (1984), p. 218).

18/ A crop group tolerance is not appropriate at the present time since additional data are required to support the established tolerances for residues in or on peaches and residue data and proposed uses are required for one additional group member (cherries, sweet or sour).

19/ Data in or on apricots must be submitted, reflecting residues of propargite following two post harvest applications with the 6 lb/gal EC formulation at 2.25 lb ai/A/ application. Applications must be made in a minimum of 10 gal of water/A using aerial equipment. Tests must be conducted in CA because this is the only State in which the 6 lb/gal EC formulation is registered for use on apricots.

20/ Additional residue data for nectarines grown in California (97% of all nectarines grown in the United States are produced in California) are required. These trials should reflect the maximum proposed use and number of treatments, minimum PHI's, application of all formulations to be used on nectarines, low volume sprays, (if desired) and ground aerial appliction.

TABLE A
GENERIC DATA REQUIREMENTS FOR PROPARGITE

FOOTNOTES FOR PREVIOUS PAGES (continued)

§158.125 Residue Chemistry

21/ Data reflecting residues of propargite in or on peaches harvested 28 days after the last of two foliar applications of the 5 lb/gal EC formulation at 4.69 lb ai/A as a concentrate spray must be submitted. Tests must be conducted in CA, and PA which collectively produced about 64% of the 1983 U.S. peach crop (Agricultural Statistics (1984), p. 215).

Data must be submitted on peaches reflecting residues of propargite treated with two foliar applictions using the 30% WP formulation. Samples must be harvested at sufficiently spaced intervals to determine residue decline, so that an appropriate PHI may be proposed. Tests must be conducted in CA, and PA.

22/ Data depicting residues from dried prunes (plums) processed from fresh fruit bearing measurable weathered resid are required. If residues are found to concentrate in dried prunes, an appropriate feed additive tolerance must be proposed.

23/ The application of propargite to cherry trees (postharvest) is considered a food use. Therefore a tolerance for residues on cherries is required. Residue data for sweet and tart varities are needed.

24/ A crop group tolerance is not appropriate at the present time because additional data are required to support the established tolerance for residues in or on grapes and proposed uses and residue data are required for two additional group members (blueberries and a member of the Rubus genus).

25/ Data depicting residues of propargite in or on grape samples harvested 21 days following two applications using the 30% WP formulation at 2.7 lb ai/A must be submitted. Tests must be conducted using aerial equipment and must be performed in Kern, Tulare, Fresno, and San Joaquin counties in CA, the only State in which this formulation is registered for use (EPA SLN No. CA-780184).

Data depicting propargite residues in or on raisin waste and juice processed from grapes containing measurable weather residues must be submitted. If residues are found to concentrate in any of the above processed products, then appropriate food/feed additive tolerances must be proposed.

Additional data must be submitted, reflecting residues ot propargite in or on raisins and dried grape pomace processed from grapes bearing measurable, weathered residues.

TABLE A
GENERIC DATA REQUIREMENTS FOR PROPARGITE

FOOTNOTES FOR PREVIOUS PAGES (continued)

§158.125 Residue Chemistry

26/ Data submitted from the CR formulation indicted that residues of propargite on strawberries may exceed the 7 ppm tolerance when this formulation is employed. Application of the 30 W formulation in reduced volume of spray per acre would not be expected to produce residues of propargite in excess of the tolerance. Additional residue data for strawberries are required. These trials should reflect application of the CR and any other formulations to be applied to strawberries. The experiments should reflect the maximum proposed use, the maximum proposed use, minimum PHI's, reduced volumes of spray (if desired) and the studies conducted in California, Floridia, and New York which account for about 90% of the U.S. strawberry production.

27/ A crop group tolerance is not appropriate at the present time because additional data is required to support the established tolerances on almonds and walnuts and a proposed use and residue data are required for one additional member of the group (pecans).

28/ Data depicting propargite residues of concern in or on almond nutmeats and hulls harvested 28 days after the latter of two applictions of the 6 lb ai/gal EC formulation at 3 lb ai/A/application using both aerial and ground equipment are required. Tests must be conducted in California because virtually all domestically grown almonds are grown in California.

In addition to the above data requirement for almond, residue data for the CR formulation of propargite are required. These studies should reflect the maximum proposed use, minimum PHI's, low volume sprays (if desired), and application of all formulations to be used on almonds.

29/ Data depicting propargite residues of concern in or on walnuts following two ground and, in separate tests, aaerial applictions, at 6.75 lb ai/A or 3 lb ai/A, respectively are needed. Samples should be collected 14 days after the last of two treatments. Tests should be conducted in California, where > 99% of U.S.-grown walnuts are produced. Alternatively, the registrant may propose a 21-day preharvest interval (PHI) for the residues of propargite in or on walnuts, because the data support this longer PHI.

In addition to the above data requirement for walnuts, residue data for the CR formulation of propargite are required. These studies should reflect the maximum proposed use, minumum PHI's low volume sprays (if desired) and application of all formulations to be used on walnuts.

30/ A crop group tolerance is not appropriate at the present time because additional data are needed to support the established tolerances for residues in/or corn sorghum and proposed uses plus appropriate residue data are required for two additional group members (rice and wheat).

TABLE A
GENERIC DATA REQUIREMENTS FOR PROPARGITE

FOOTNOTES FOR PREVIOUS PAGES (continued)

§158.125 Residue Chemistry

31/ Data reflecting residues of propargite in or on filed corn following treatment with an EC formulation at 2.5 lb ai/A applied using both aerial (including ULV tests from CO, KS, and NM) and ground equipment and harvest at the shortest permissible posttreatment interval, 30 days, must be submitted. Tests must be conducted in IA (18%), IL (15%), NB (11%), WI (5%), and OH (5%), which represent the major corn-growing regions in the U.S.

Data reflecting residues of propargite on field corn resulting from two applications of the 6.55 lb/gal EC formulation at 1.64 lb ai/A/application using both ground and aerial equipment are required. The applications should be made at a 3-week interval or the second appliction made at the earliest interval at which a reinfestation may occur. Samples should be collected 30 days after the second application and tests must be conducted in KS to support the registered state use (EPA SLN NO. KS-810031).

For overhead sprinkler application, the registrant must propose a maximum number of applications per season and submit supporting data reflecting such use following application of the 6.55 lb/gal EC formulation of propargite at 2.5 lb ai/A when plants are approximately 6 ft high. Samples must be collected 30 days after application and tests must be conducted in TX to support a registered State use (EPA SLN No. TX-810041).

Data depicting residues in wet and dry milled products, including crude and refined olis, processed for field corn grain bearing measurable weathered residues are required. Exaggerated application rates may be needed to obtain measurable residues in field corn grain. If concentration occurs, appropriate food/feed additive tolerances must be proposed. Data must be submitted reflecting residues of propargite in or on fresh corn (including sweet corn kernels plus cobs with husks removed) following a single application of the 6.55 lb/gal EC at 2.5 lb ai/A using both ground and aerial equipment. Data reflecting 2 gal spray/A ULV application must also be submitted. Samples must be collected 30 days after treatment and tests must be conducted in CA, the only State in which use of propargite on sweet corn is registered.

TABLE A
GENERIC DATA REQUIREMENTS FOR PROARGITE

FOOTNOTES FOR PREVIOUS PAGES (continued)

§158.125 Residue Chemistry

32/ Data reflecting residues of propargite in or on sorghum grain following a single application of either the 6 lb/gal or 6.55 l/gal EC formulation at 1169 lb ai/A must be submitted. Applications must be made using both aerial and ground equipment and sorghum grain samples must be collected 30 days after treatment. Tests must be conducted in TX, NB, and KS which produce approximately 70% of the total U.S. - grown sorghum crop.

Data depicting residues in flour and milled products processed from sorghum grain bearing measurable weathered residues are required. If concentration occurs, appropriate food/teed additive tolerances must be proposed.

33/ A crop group tolerance is inappropriate at the present time since additional data are required to support the established tolerances on corn and sorghum and proposed uses plus residue data are required on one additional group member (wheat).

34/ For overhead sprinkler irrigation application, the registrant must propose a maximum number of applications on corn plants per season and a minimum interval between successive applications. Data must be submitted in support of the proposed use; applications should be made when plants are 5 to 6 ft high using the 6.55 lb/gal EC formulation at 2.5 lb ai/A/application. Forage samples should bve collected 30 days after the last application and fodder samples should be collected as soon after the 30-day preharvest interval as good agricultural practice permits. Tests must be conducted in TX (EPA SLN No. TX-810041). Alternatively, the registrant may propose a teed restriction prohibiting the use of corn forage, fooder, and silage by livestock following treatment of corn plants with propargite using overhead irrigation methods.

Data reflecting are residues of propargite in or on corn forage and fooder following ULV aerial application of either the 6 lb/gal or 6.55 lb/gal EC formulations a 2.5 lb ai/A are required. Forage samples should be collected 30 days after treatment and fodder samples should be collected as soon after the 30-day preharvest interval as good agricultural practice permits. Tests must be conducted in KS, CO, and NM (States in which ULV application is currently permitted).

TABLE A
GENERIC DATA REQUIREMENTS FOR PROPARGITE

FOOTNOTES FOR PREVIOUS PAGES (continued)

§158.125 Residue Chemistry

35/ The postharvest use of avocados is considered to be a food use and therefore residue data and tolerance proposals are required. The residue trials should reflect the maximum proposed use, minimum PHI,s low volumne sprays (if desired) ground and aerial applications and treatments employing all formulations to be used on avocadoes.

36/ Data reflecting residues in meal, hulls, soapstock, and crude and refined oil processed from seed bearing measurable weathered residues must be submitted. Exaggerated rates may be needed to obtain measurable residues in cottonseed. If residues are found to concentrate in any of these processed products, appropriate food/feed additive tolerances must be proposed.

37/ Available data support the established tolerance for residue of propargite in or on fresh figs but not the established 9.0 ppm food additive tolerance for residues in or on dried figs. The available data show that residues may concentrate up to 6X in or on dried figs; therefore, the registrant must propose a food additive tolerance increase from 9 ppm to 18 ppm.

In addition, residue data on figs treated with the CR, CRS, and 30 WS formulations are needed. These trials should reflect the maximum proposed use, minimum PHI's, and low volume sprays, if desired. Depending on the results of the additional residue studies, a higher food-additive tolerance level for dried figs may be needed.

38/ Data depicting residues of concern in or on fresh and dried hops harvested 14-days after the last of two treatments with the 6 lb/gal EC formulation at 1.5 lb ai/A/application are required. Studies should be conducted in WA because this state produces approximately 75% of the U.S. - grown hops crop (Agricultural Statistics, 1984, p. 259).

Data depicting residues of concern in or on fresh and dried hops harvested 14 days after the last of two applications with the 6 lb/gal EC formlulation at 4 lb ai/A/application are required. Test must be conducted in ID to reflect the use allowed of the interstate products (State Reg. No. 8917-5585).

Additional residue data for fresh and dried hops treated with propargite should be carried out in Washington and should reflect the maximum proposed use, minimum PHI's, low volume sprays, if desired, and application of all formulations (current and proposed) to be used on hops.

TABLE A
GENERIC DATA REQUIREMENTS FOR PROPARGITE

FOOTNOTES FOR PREVIOUS PAGES (continued)

§158.125 Residue Chemistry

39/ Data reflecting residues in meal, soapstock, and crude and refined oil processed from seed bearing measurable weathered residues must be submitted. If residues are found to concentrate in any of these processed products, appropriate food/feed additive tolerances must be proposed.

40/ The registrant must propose a maximum number of applications or maximum seasonal use rate and submit data reflecting residues in or on dried tea leaves following multiple foliar applications of the 5 lb/gal EC formulation at 0.38 lb ai/A. Samples must be collected 7 days after the final application.

41/ Propargite is registered on alfalfa, sweet corn, clover and cucurbits grown for seed. No tolerances exist for residues of propargite in or on cucurbits, alfalfa or clover. The seeds of certain cucurbits (pumpkins and squash) could be directed to human consumption and successive cuttings of alfalfa and clover for animal feed could be taken following harvest for seed. These residue data and proposed tolerances are required.

42/ These are no federally registered uses for propargite on animals. Presently, the natuare of the residue in animals is not adequately understood. On receipt of the data requested in the section entitled "Natuare of the Residue in Animals," the appropriateness of tolerances for residues in animal products will be determined and, considering any newly found metabolite of toxicological concern the adequacy of the avaiable data regarding the magnitude of residues in animal products will be determined. Also at that time, pertinent sample storage and storage stability information for animal commodities will be required since such information was not provided with the studies submitted.

43/ Since completion of these data requirements requires a tiered approach (metabolism -> residue analytical method -> crop field trials/storage stability/processed foods and feeds -> meat/milk/poultry/eggs), the registrants must submit a proposed timeframe schedule for data submissions within 90 days after receipt to this Guidance Document. Allowances to the required time lines will be made only if sufficient justification is provided, i.e., the registrant states he does not have this data and due to the seasonal nature of the crop and the tiered approach requirement, additional time is needed to satisfy the data requirement. The Agency reserves the right to request necessary studies earlier than the period specified in the above tables and/or proposed timeframes.

TABLE A
GENERIC DATA REQUIREMENTS FOR PROPARGITE

Data Requirement	Test Composition[1]/	Use Patterns[2]/	Does EPA Have Data?	Bibliographic Citation	Must Additional Data be Submitted?	Timeframe for Data Submission[3]/
§158.130 Environmental Fate						
DEGRADATION STUDIES-LAB:						
161-1 - Hydrolysis	TGAI or PAIRA	A,B,C,F	No	--	Yes	9 Months
Photodegradation						
161-2 - In Water	TGAI or PAIRA	A,B,C	No	--	Yes	9 Months
161-3 - On soil	TGAI or PAIRA	A	No	--	Yes	9 Months
161-4 - In Air	TGAI or PAIRA	A	No	--	No	
METABOLISM STUDIES-LAB:						
162-1 - Aerobic Soil	TGAI or PAIRA	A,B,F	No	--	Yes	27 Months[7]/
162-2 - Anaerobic Soil	TGAI or PAIRA	A	No	--	Yes	27 Months[7]/
162-3 - Anaerobic Aquatic	TGAI or PAIRA	A,C	No	--	Yes	27 Months[7]/
162-4 - Aerobic Aquatic	TGAI or PAIRA	C	No	--	Yes	27 Months[7]/
MOBILITY STUDIES:						
163-1 - Leaching and Adsorption/Desorption	TGAI or PAIRA	A,B,C,F	Partially	00100290, 00112414	Yes[4]/	12 Months
163-2 - Volatility (Lab)	TEP	A,F	No	--	Yes	12 Months
163-3 - Volatility (Field)	TEP	A,F	No	--	Reserved[5]/	

TABLE A
GENERIC DATA REQUIREMENTS FOR PROPARGITE

Data Requirement	Test Composition[1]/	Use Patterns[2]/	Does EPA Have Data?	Bibliographic Citation	Must Additional Data be Submitted?	Timeframe for Data Submission[3]/
§158.130 Environmental Fate (cont'd)						
DISSIPATION STUDIES-FIELD:						
164-1 - Soil	TEP	A,B,	No	--	Yes	27 Months
164-2 - Aquatic (Sediment)	TEP	C	No	--	Yes	27 Months
164-3 - Forestry	TEP		No	--	No	
164-4 - Combination and Tank Mixes			No	--	No	
164-5 - Soil, Long-term	TEP	A,C	No	--	Reserved[6]/	
ACCUMULATION STUDIES:						
165-1 - Rotational Crops (Confined)	PAIRA	A,C	No	--	Yes[8]/	39 Months
165-2 - Rotational Crops (Field)	TEP	A,C	No	--	Yes[8]/	50 Months
165-3 - Irrigated Crops	TEP	C	No	--	Yes	39 Months
165-4 - In Fish	TGAI or PAIRA	A,B,C,F	No	--	Yes	12 Months
165-5 - In Aquatic Nontarget Organisms	TEP		No	--	No	

FOOTNOTE FOR PREVIOUS PAGES

158.130 ENVIRONMENTAL FATE

1/ Composition: TGAI = Technical grade of the active ingredient; PAIRA = Pure active ingredient, radiolabeled; TEP = Typical end-use product.

2/ The use patterns are coded as follows; A = Terrestrial, Food Crop; B = Terrestrial, Nonfood; C = Aquatic, Food C D = Aquatic, Nonfood; E = Greenhouse, Food Crop; F = Greenhouse, Nonfood; G = Forestry; H = Domestic Outdoor; I Indoor.

3/ Due dates refer to number of months following receipt of the Guidance Document or as otherwise indicated.

4/ An aged leaching study must be submitted.

5/ Contingent upon results of lab volatility study.

6/ Pending results of field dissipation study and aerobic soil metabolism study.

7/ A progress report is due 8 months from receipt of this Guidance Document and semi-annually afterwards.

8/ Data have been submitted, however they do not meet Guideline requirements. The data do suggest uptake will occur.

TABLE A
GENERIC DATA REQUIREMENTS FOR PROPARGITE

Data Requirement	Test Composition	Use Patterns	Does EPA Have Data?	Bibliographic Citation	Must Additional Data be Submitted?	Timetrame for Data Submission
§158.75 - OTHER EXPOSURE DATA						
Glove Permeability		A,B	No		Yes[1]	6 months-acceptable protocol 14 Months-final report

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[1] Quantitive data must be submitted regarding the permeation and breakthrough time of chemical resistant gloves used as protective clothing and equipment for all liquid formulations. If these data are not available, they must be generated using methods described in American Society of Testing and Materials (ASTM) 739-81-Standard Test Method for Resistance of Protective Materials to Permeation by Hazardous Liquid Chemicals. Because this type of testing is relatively new, it is recommended that testing protocols for permeation studies be submitted prior to initiation of any study.

TABLE A
GENERIC DATA REQUIREMENTS FOR PROPARGITE

Data Requirement	Test Substance[1]/	Use Patterns[2]/	Does EPA Have Data?	Bibliographic Citation	Must Additional Data be Submitted?	Timeframe for Data Submission[3]/
§158.135 Toxicology						
ACUTE TESTING:						
81-1 - Oral LD_{50} - Rat	TGAI	A,B,F	Yes	00048807	No	
81-2 - Dermal LD_{50} - Rabbit	TGAI	A,B,F	Yes	00048808	No	
81-3 - Inhalation LC_{50} - Rat	TGAI	A,B,F	Yes	00061586	No	
81-7 - Delayed Neurotoxicity - Hen	TGAI	A,B,F	Not Required[4]/	--	No	
SUBCHRONIC TESTING:						
82-1 - 90-Day Feeding - Rodent, Nonrodent	TGAI	A,B,F	Yes	00076401, 00076402	No[5]/	
82-2 - 21-Day Dermal - Rabbit	TGAI	A,B,F	No	--	Yes	9 Months
82-3 - 90-Day Dermal - Rabbit	TGAI	A,B,F	No	--	No[6]/	
82-4 - 90-Day Inhalation - Rat	TGAI	A,B,F	No	--	Yes	9 Months
82-5 - 90-Day Neurotoxicity - Hen/Mammal	TGAI	A,B,F	Not Required[4]/	--	No	

TABLE A
GENERIC DATA REQUIREMENTS FOR PHOPARGITE

FOOTNOTES FOR PREVIOUS PAGES

§158.135 Toxicology

1/ Composition: TGAI = Technical grade of the active ingredient.

2/ The use patterns are coded as follows: A = Terrestrial, Food Crop; B = Terrestrial, Nonfood; C = Aquatic, Food Crop; D = Aquatic, Nonfood; E = Greenhouse, Food Crop; F = Greenhouse, Nonfood; G = Forestry; H = Domestic Outdoor; I = Indoor.

3/ Due dates refer to number of months following receipt of the Guidance Document or as otherwise indicated.

4/ Propargite does not relate to a known group of cholinestease inhibitors such as organophosphates, therefore a neurotoxicity study is not required

5/ Subchronic dog study requirement satisfied by 2-year feeding study in dog.

6/ Based upon acute data, propargite is not absorbed through the skin; therefore, a 90-day study is not required.

7/ A second chronic feeding study is required on technical propargite in a rodent, preferably in the rat.

8/ A second rodent oncogenicity study is required (other than mouse).

9/ Additional mutagenicity testing should include gene mutation in mammalian cells, structural chromosomal aberrations, and other genotoxic effects, e.g., numerical chromosomal aberrations or direct DNA damage/repair.

10/ A repeated metabolism study must be submitted. Data on file have been found to be deficient in several areas.

11/ Data base does not mandate testing since, based on acute dermal toxicity, propargite will not be absorded through the skin.

12/ Propargite is not registered for domestic animal use.

13/ A progress report is due 8 months from receipt of the Guidance Document an semi-annually afterwards.

TABLE A

GENERIC DATA REQUIREMENTS FOR PROPARGITE

Data Requirement	Test Composition	Use Patterns	Does EPA Have Data?	Bibliographic Citation	Must Additional Data be Submitted?	Timeframe for Data Submission
§158.75 - OTHER EXPOSURE DATA						
Glove Permeability		A,B	No		Yes[9]	6 months-acceptable protocol 14 Months-final report

TABLE A
GENERIC DATA REQUIREMENTS FOR PROPARGITE

Data Requirement	Test Composition[1]/	Use Patterns[2]/	Does EPA Have Data?	Bibliographic Citation	Must Additional Data be Submitted?	Timeframe for Data Submission[3]/
§158.140 Environmental Fate (cont'd)						
Subpart K Reentry						
132-1 - Foliar Dissipation	TEP	A,C,F	No	--	Yes	NOVEMBER, 1987[4]/
132-1 - Soil Dissipation	TEP	A,C,F	No	--	Yes[5]/	NOVEMBER, 1987[4]/
133-3 - Dermal Exposure	TEP	A,C,F	No	--	No[6]/	
133-4 - Inhalation Exposure	TEP	A,C,F	No	--	No[6]/	

1/ Composition: TGAI = Technical grade of the active ingredient; PAIRA = Pure active ingredient, radiolabeled; TEP = Typical end-use product.

2/ The use patterns are coded as follows; A = Terrestrial, Food Crop; B = Terrestrial, Nonfood; C = Aquatic, Food Crop; D = Aquatic, Nonfood; E = Greenhouse, Food Crop; F = Greenhouse, Nonfood; G = Forestry; H = Domestic Outdoor; I = Indoor.

3/ Due dates refer to number of months following receipt of this Guidance Document or as otherwise indicated.

4/ This data has already been required under the propargite Reentry Call-In Notice issued May 22, 1986. The due date for submission of this data reflects the time alloted by the Data Call-In Notice.

5/ This data is required for propargite products registered for use on potatoes and peanuts since human tasks would involve substantial exposure to residues sorbed to soil.

6/ Data are required only if appropriate surrogate data are unavailable (i.e for soil dissipation) and the applicant chooses the allowable exposure level method for reentry interval.

TABLE A
GENERIC DATA REQUIREMENTS FOR PROPARGITE

Data Requirement	Test Substance[1]/	Use Patterns[2]/	Does EPA Have Data?	Bibliographic Citation	Must Additional Data be Submitted?	Timeframe for Data Submission[3]/
§158.135 Toxicology (cont'd)						
CHRONIC TESTING:						
83-1 - Chronic Toxicity - 2 Species: Rodent and Nonrodent	TGAI	A,B,F	Partially	00076402	Yes[7]/	50 Months[13]/
83-2 - Oncogenicity - 2 Species: Rat and Mouse Preferred	TGAI	A,B,F	Partially	00130942	Yes[8]/	50 Months[13]/
83-3 - Teratogenicity - 2 Species	TGAI	A,B,F	Yes	00105990, 00041386	No	
83-4 - Reproduction - Rat 2-Generation	TGAI	A,B,F	No	--	Yes	39 Months[13]/
MUTAGENICITY TESTING						
84-2 - Gene Mutation	TGAI	A,B,F	Partially	00066497	Yes[9]/	9 Months
84-2 - Chromosomal Aberration	TGAI	A,B,F	No	--	Yes	12 Months
84-2 - Other Mechanisms of Mutagenicity	TGAI	A,B,F	No	--	Yes	12 Months
SPECIAL TESTING						
85-1 - General Metabolism	TGAI	A,B,F	No	--	Yes[10]/	24 Months[13]/
85-2 - Dermal Penetration	Choice	A,B,F	Not Required[11]/	--		
86-1 - Domestic Animal Safety	Choice	A,B,F	Not Required[12]/	--		

TABLE A
GENERIC DATA REQUIREMENTS FOR PROPARGITE

Data Requirement	Test Composition[1]/	Use Patterns[2]/	Does EPA Have Data?	Bibliographic Citation	Must Additional Data be Submitted?	Timeframe for Data Submission[3]/
§158.145 Wildlife and Aquatic Organisms						
SPECIAL TESTING						
70-1 - Residue Level Monitoring (Aquatic)	TEP	A	No	—	Yes[10]/	6 months- Acceptable Protocol 18 Months Final Report
-Residue Level Monitoring (Terrestial)	TEP	A	No	--	Reserved[11]/	
Avian and Mammalian Testing						
71-1 - Avian Oral LD_{50}	TGAI	A,B,C,F	Yes	00052454	No	
71-2 - Avian Dietary LC_{50}						
a. Upland game bird	TGAI	A,B,C,F	Yes	00113471	No	
b. Waterfowl	TGAI	A,B,C	Yes	00052454	No	
71-3 - Wild Mammal Toxicity	TGAI	A,B,C	N/A		No	
71-4 - Avian Reproduction	TGAI	A,B,C	No		Yes[4]/	24 Months[9]/
71-5 - Simulated and Actual Field Testing - Mammals & Birds	TEP	A,B,C	No		Reserved[5]/	
Aquatic Organism Testing						
72-1 - Freshwater Fish LC_{50}						
a. Warmwater	TGAI	A,B,C	Yes	00066498	No	
b. Coldwater	TGAI	A,B,C	Yes	00066498	No	
c. Warmwater	TEP	C	No		Yes[6]/	9 Months
d. Coldwater	TEP	C	No		Yes[6]/	9 Months
72-2 - Acute LC_{50} Freshwater Invertebrates	TGAI	A,B,C,F	Yes	00068752	No	
	TEP	C	No		Yes[6]/	9 Months

TABLE A
GENERIC DATA REQUIREMENTS FOR PROPARGITE

Data Requirement	Test Composition[1]/	Use Patterns[2]/	Does EPA Have Data?	Bibliographic Citation	Must Additional Data be Submitted?	Timeframe for Data Submission[3]/
§158.145 Wildlife and Aquatic Organisms (cont'd)						
72-3 - Acute LC_{50} Estuarine & Marine Organisms						
Shrimp	TGAI	A,C	Yes	00112395	No	
	TEP	C	No		Yes[7]/	12 Months
Fish	TGAI	A,C	No		Yes	12 Months
	TEP	C	No		Yes[7]/	12 Months
Mollusk	TGAI	A,C	No		Yes	12 Months
	TEP	C	No		Yes[7]/	12 Months
72-4 - Fish Early Lifestage	TGAI	A,C	Yes	00126739	No	
-Aquatic Invertebrate Lifecycle	TGAI	A,C	Yes	00142594	No	
72-5 - Fish Lifecycle	TGAI	A,C	No		Reserved[8]/	
72-6 - Aquatic Organism Accumulation	TGAI	A,C	No		Reserved[8]/	
72-7 - Simulated or Actual Field Testing of Aquatic Organisms	TEP	A,C	No		Reserved[8]/	

TABLE A
GENERIC DATA REQUIREMENTS FOR PROPARGITE

FOOTNOTES FOR PREVIOUS PAGES

§158.145 Wildlife and Aquatic Organisms

1/ Composition: TGAI = Technical grade of the active ingredient; PAI = Pure active ingredient; TEP = Typical end-use product.

2/ The use patterns are coded as follows: A = Terrestrial, food crop; B = Terrestrial, nonfood; C = Aquatic, food crop; D = Aquatic, nonfood; E = Greenhouse, food crop; F = Greenhouse, nonfood; G = Forestry; H = Domestic outdoor; I = Indoor.

3/ Due dates refer to number of months following receipt of this Guidance Document or as otherwise indicated.

4/ To support citrus, cotton, grapes, and apple use patterns.

5/ Reserved pending receipt and review of avian reproduction and pertinent environmental fate characteristics.

6/ Test must be conducted to support the cranberry use, using the 6 lb/gal EC registered for canberry use. If the product is more toxic than the technical material, the terrestrial food crop uses are also subject to this data requirement.

7/ Test must be conducted to support the cranberry use. If the product is more toxic than the technical material and the results of hydrolysis and photolysis studies indicate persistence then the corn, cotton, and citrus uses are also subject to this data requirement.

8/ Reserved pending receipt and review of fate data such as hydrolysis and photolysis and results of lower aquatic organism tier studies.

9/ A progress report is due 8 months from receipt of this Guidance Document and semiannual thereafter.

10/ Residue level monitoring data is required to support the registration of propargite use on corn, cotton, and citrus. Data on residue levels in runoff water, and in the water and sediments of representative streams and ponds in or near treatment areas is required. Monitoring should begin immediately after typical maximum-rate applications of propargite to corn, cotton, and citrus crops. Monitoring should continue throughout the growing season and for six months after the last application. Monitoring must be done on a minimum of six sites selected to be representative of the various sites where the crops are grown. For corn, selected sites must include sites from the southern States. Registrants must submit acceptable protocols before beginning the studies.

11/ Terrestrial residue level monitoring data is dependent upon the results of the avian reproduction and/or the 2 year rat reproduction studies.

TABLE A
GENERIC DATA REQUIREMENTS FOR PROPARGITE

Data Requirement	Composition[1/]	Use Patterns[2/]	Does EPA Have Data To Satisfy This Requirement?	Bibliographic Citation	Must Additional Data be Submitted?	Timeframe for Data Submission[3/]
§158.155 Nontarget Insect						
NONTARGET INSECT TESTING - POLLINATORS:						
141-1 - Honeybee Acute Contact LD50	TGAI	A,B	Yes	00036935	No	
141-2 - Honeybee - Toxicity of Residues on Foliage	TEP	A,B	Yes	00060628	No	
141-4 - Honeybee Subacute Feeding Study	[Reserved][4/]					
141-5 - Field Testing For Pollinators	TEP	A,B	No	--	No[5/]	
NONTARGET INSECT TESTING - AQUATIC INSECTS:						
142-1 - Acute Toxicity to Aquatic Insects	[Reserved][6/]					
142-2 - Aquatic Insect Lifecycle Study	[Reserved][6/]					

[1/] Composition: TGAI = Technical grade of the active ingredient; TEP = Typical end-use product.

[2/] The use patterns are coded as follows: A = Terrestrial, Food Crop; B = Terrestrial, Nonfood; C = Aquatic, Food Crop; D = Aquatic, Nonfood; E = Greenhouse, Food Crop; F = Greenhouse, Nonfood, G = Forestry; H = Domestic Outdoor; I = Indoor.

[3/] Due dates refer to the number of months following receipt of the Guidance Document or as otherwise indicated.

[4/] Reserved pending development of test methodology.

[5/] As acute and residual toxicity tests indicate low toxicity to honeybees, no further testing is required.

[6/] Reserved pending Agency decision as to whether the data requirement should be established.

TABLE A
GENERIC DATA REQUIREMENTS FOR PROPARGITE

Data Requirement	Composition[1]	Use Patterns[2]	Does EPA Have Data To Satisfy This Requirement?	Bibliographic Citation	Must Additional Data be Submitted?	Timeframe for Data Submission[3]
§158.155 Nontarget Insect (cont'd)						
NONTARGET INSECT TESTING - AQUATIC INSECTS:						
142-3 - Simulated or Actual Field Testing for Aquatic Insects	[Reserved][6]					
143-1 thru 143-3 - NONTARGET INSECT TESTING - PREDATORS AND PARASITES	[Reserved][6]					

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[6] Reserved pending Agency decision as to whether the data requirement should be established.

TABLE B
PRODUCT-SPECIFIC DATA REQUIREMENTS FOR MANUFACTURING-USE PRODUCTS CONTAINING PROPARGITE

Data Requirement	Test Substance1/	Use Patterns	Does EPA Have Data?2/	Bibliographic Citation	Must Additional Data Be Submitted?	Timeframe for Data Submission
158.120 Product Chemistry						
Product Identity and Composition						
61-1 - Product Identity and Disclosure of Ingredients	MUP	A,B,C,F	No		Yes	6 Months
61-2 - Description of Beginning Materials and Manufacturing Process	MUP	A,B,C,F	No		Yes	6 Months
61-3 - Discussion of Formation of Impurities	MUP	A,B,C,F	No		Yes	6 Months
Analysis and Certification of Product Ingredients						
62-1 - Preliminary Analysis of Product Samples	MUP	A,B,C,F	No		Yes	12 Months
62-2 - Certification of Ingredient Limits	MUP	A,B,C,F	No		Yes	12 Months
62-3 - Analytical Methods to Verify Certified Limits	MUP	A,B,C,F	No		Yes	12 Months
Other Requirements						
64-1 - Submittal of Samples	MUP	A,B,C,F	No		Reserved3/	

1/ The 85% and 25% technical products serve as manufacturing use products.

2/ Although product chemistry data may have been submitted in the past, the Agency has determined that these data must be resubmitted for each pesticide. New requirements have been introduced and previously submitted data must be updated. Therefore, bibliographic citations for the old data are not applicable.

3/ If samples are needed, the Agency will request them.

TABLE B
PRODUCT-SPECIFIC DATA REQUIREMENTS FOR MANUFACTURING-USE PRODUCTS CONTAINING PROPARGITE

Data Requirement	Test Substance[1]/	Use Patterns[2]/	Does EPA Have Data?	Bibliographic Citation	Must Additional Data Be Submitted?	Timeframe for Data Submission[3]/
§158.135 Toxicology						
ACUTE TESTING						
81-1 - Acute Oral Toxicity - Rat	MP	A,B,F	Yes	00048807	No	
81-2 - Acute Dermal Toxicity - Rabbit	MP	A,B,F	Yes	00048808	No	
81-3 - Acute Inhalation Toxicity - Rat	MP	A,B,F	Yes	00061586	No	
81-4 - Primary Eye Irritation	TGAI	A,B,F	Yes	00066496	No	
81-5 - Primary Dermal Irritation	TGAI	A,B,F	Yes	00066495	No	
81-6 - Dermal Sensitization	TGAI	A,B,F	Partially	0067558	Yes[4]	9 Months

---

1/ Composition: MP = Manufacturing-use product.

2/ The use patterns are coded as follows: A = Terrestrial, Food Crop; B = Terrestrial, Nonfood; C = Aquatic, Food Crop; D = Aquatic, Nonfood; E = Greenhouse, Food Crop; F = Greenhouse, Nonfood; G = Forestry; H = Domestic, Outdoor; I = Indoor.

3/ Due dates refer to number of months following receipt of guidance Document or as otherwise indicated.

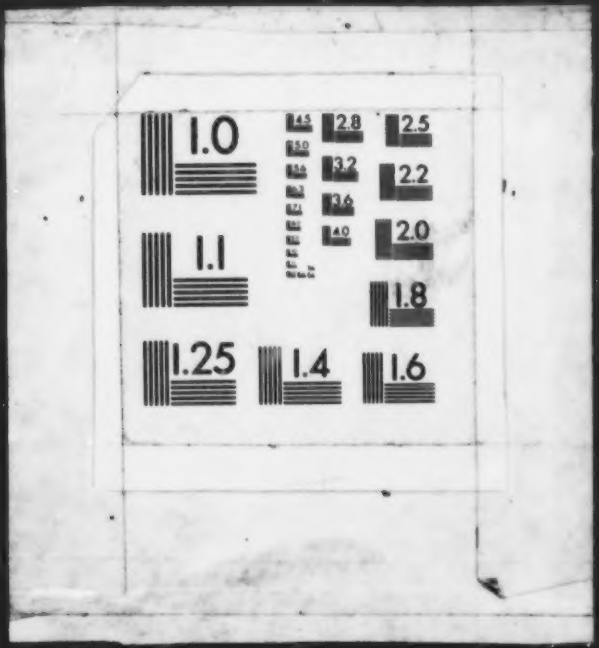
4/ The existing study is unacceptable at the present time since no dates for dosing and scoring were given in the raw data, no information was given on when the challenge dose was administered nor if scoring was done at the required times following the protocol. Unless this information is furnished, a repeat study is required.

II. LABELING APPENDICES

2 OF 2

PB87

139358


1.0
4.5
5.0
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2.8
3.2
3.6
4.0
2.5
2.2
2.0
1.1
1.8
1.25
1.4
1.6

SUMMARY-1

LABEL CONTENTS

40 CFR 162.10 requires that certain specific labeling statements appear at certain locations on the label. This is referred to as format labeling. Specific label items listed below are keyed to the table at the end of this Appendix.

Item 1. PRODUCT NAME - The name, brand or trademark is required to be located on the front panel, preferably centered in the upper part of the panel. The name of a product will not be accepted if it is false or misleading.

Item 2. COMPANY NAME AND ADDRESS - The name and address of the registrant or distributor is required on the label. The name and address should preferably be located at the bottom of the front panel or at the end of the label text.

Item 3. NET CONTENTS - A net contents statement is required on all labels or on the container of the pesticide. The preferred location is the bottom of the front panel immediately above the company name and address, or at the end of the label text. The net contents must be expressed in the largest suitable unit, e.g., "1 pound 10 ounces" rather than "26 ounces." In addition to English units, net contents may be expressed in metric units. [40 CFR 162.10(d)]

Item 4. EPA REGISTRATION NUMBER - The registration number assigned to the pesticide product must appear on the label, preceded by the phrase "EPA Registration No.," or "EPA Reg. No." The registration number must be set in type of a size and style similar to other print on that part of the label on which it appears and must run parallel to it. The registration number and the required identifying phrase must not appear in such a manner as to suggest or imply recommendation or endorsement of the product by the Agency. [40 CFR 162.10(e)]

Item 5. EPA ESTABLISHMENT NUMBER - The EPA establishment number, preceded by the phrase "EPA Est." is the final establishment at which the product was produced, and may appear in any suitable location on the label or immediate container. It must also appear on the wrapper or outside container of the package if the EPA establishment number on the immediate container cannot be clearly read through such wrapper or container. [40 CFR 162.10(f)]

Item 6A. INGREDIENTS STATEMENT - An ingredients statement is required on the front panel. The ingredients statement must contain the name and percentage by weight of each active ingredient and the total percentage by weight of all inert ingredients. The preferred location is immediately below the product name. The ingredients statement must run parallel with, and be clearly distinguished from, other text on the panel. It must not be placed in the body of other text. [40 CFR 162.10(g)]

SUMMARY-2

Item 6B. POUNDS PER GALLON STATEMENT - For liquid agricultural formulations, the pounds per gallon of active ingredient must be indicated on the label.

Item 7. FRONT LABEL PRECAUTIONARY STATEMENTS - Front panel precautionary statements must be grouped together, preferably within a block outline. The table below shows the minimum type size requirements for various size labels.

Size of Label on Front Panel in Square Inches	Signal Word Minimum Type Size All Capitals	"Keep Out of Reach of Children" Minimum Type Size
5 and under	6 point	6 point
above 5 to 10	10 point	6 point
above 10 to 15	12 point	8 point
above 15 to 30	14 point	10 point
over 30	18 point	12 point

Item 7A. CHILD HAZARD WARNING STATEMENT - The statement "Keep Out of Reach of Children" must be located on the front panel above the signal word except where contact with children during distribution or use is unlikely. [40 CFR 162.10(h)(1)(ii)]

Item 7B. SIGNAL WORD - The signal word (DANGER, WARNING, or CAUTION) is required on the front panel immediately below the child hazard warning statement. [40 CFR 162.10 (h)(1)(i)]

Item 7C. SKULL & CROSSBONES AND WORD "POISON" - On products assigned a toxicity Category I on the basis of oral, dermal, or inhalation toxicity, the word "Poison" shall appear on the label in red on a background of distinctly contrasting color and the skull and crossbones shall appear in immediate proximity to the word POISON. [40 CFR 162.10(h)(1)(i)]

Item 7D. STATEMENT OF PRACTICAL TREATMENT - A statement of practical treatment (first aid or other) shall appear on the label of pesticide products in toxicity Categories I, II, and III. [40 CFR 162.10(h)(1)(iii)]

Item 7E. REFERRAL STATEMENT - The statement "See Side (or Back) Panel for Additional Precautionary Statements" is required on the front panel for all products, unless all required precautionary statements appear on the front panel. [40 CFR 162.10(h)(1)(iii)]

Item 8. SIDE/BACK PANEL PRECAUTIONARY LABELING - The precautionary statements listed below must appear together on the label under the heading "PRECAUTIONARY STATEMENTS." The preferred location is at the top of the side or back panel preceding the directions for use, and it is preferred that these statements be surrounded by a block outline. Each of the three hazard warning statements must be headed by the appropriate hazard title. [40 CFR 162.10(h)(2)].

Item 8A. HAZARD TO HUMANS AND DOMESTIC ANIMALS - Where a hazard exists to humans or domestic animals, precautionary statements are required indicating the particular hazard, the route(s) of exposure and the precautions to be taken to avoid accident, injury or damage. [40 CFR 162.10(h)(2)(i)]

Item 8B. ENVIRONMENTAL HAZARD - Where a hazard exists to non-target organisms excluding humans and domestic animals, precautionary statements are required stating the nature of the hazard and the appropriate precautions to avoid potential accident, injury, or damage. [40 CFR 162.10(h)(2)(ii)]

Item 8C. PHYSICAL OR CHEMICAL HAZARD - FLAMMABILITY Precautionary statements relating to flammability of a product are required to appear on the label if it meets the criteria in the PHYS/CHEM Labeling Appendix. The requirement is based on the results of the flashpoint determinations and flame extension tests required to be submitted for all products. These statements are to be located in the side/back panel precautionary statements section, preceded by the heading "Physical/Chemical Hazards." Note that no signal word is used in conjunction with the flammability statements.

Item 9A. RESTRICTED USE CLASSIFICATION - FIFRA sec. 3(d) requires that all pesticide formulations/uses be classified for either general or restricted use. Products classified for restricted use may be limited to use by certified applicators or persons under their direct supervision (or may be subject to other restrictions that may be imposed by regulation).

In the Registration Standard, the Agency has (1) indicated certain formulations/uses are to be restricted (Section IV indicates why the product has been classified for restricted use); or (2) reserved any classification decision until appropriate data are submitted.

The Regulatory Position and Rationale states whether products containing this active ingredient are classified for restricted use. If they are restricted the draft label(s) submitted to the Agency as part of your application must reflect this determination (see below).

If you do not believe that your product should be classified for restricted use, you must submit any information and rationale with your application for reregistration. During the Agency's review of your application, your proposed classification determination will be evaluated in accordance with the provisions of 40 CFR 162.11(c). You will be notified of the Agency's classification decision.

SUMMARY-4

Classification Labeling Requirements

If your product has been classified for restricted use, the following label requirements apply:

1. All uses restricted.

a. The statement "Restricted Use Pesticide" must appear at the top of the front panel of the label. The statement must be set in type of the same minimum size as required for human hazard signal word (see table in 40 CFR 162.10(h)(1)(iv)

b. Directly below this statement on the front panel, a summary statement of the terms of restriction must appear (including the reasons for restriction if specified in Section I). If use is restricted to certified applicators, the following statement is required: "For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's Certification."

2. Some but not all uses restricted. If the Regulatory Position and Rationale states that some uses are classified for restricted use, and some are unclassified, several courses of action are available:

a. You may label the product for Restricted use. If you do so, you may include on the label uses that are unrestricted, but you may not distinguish them on the label as being unrestricted.

b. You may delete all restricted uses from your label and submit draft labeling bearing only unrestricted uses.

c. You may "split" your registration, i.e., register two separate products with identical formulations, one bearing only unrestricted uses, and the other bearing restricted uses. To do so, submit two applications for reregistration, each containing all forms and necessary labels. Both applications should be submitted simultaneously. Note that the products will be assigned separate registration numbers.

Item 9B. MISUSE STATEMENT - All products must bear the misuse statement, "It is a violation of Federal law to use this product in a manner inconsistent with its labeling." This statement appears at the beginning of the directions for use, directly beneath the heading of that section.

SUMMARY-5

Item 10A. REENTRY STATEMENT - If a reentry interval has been established by the Agency, it must be included on the label. Additional worker protection statements may be required in accordance with PR Notice 83-2, March 29, 1983.

Item 10B. STORAGE AND DISPOSAL BLOCK - All labels are required to bear storage and disposal statements. These statements are developed for specific containers, sizes, and chemical content. These instructions must be grouped and appear under the heading "Storage and Disposal" in the directions for use. This heading must be set in the same type sizes as required for the child hazard warning. Refer to Appendix II, STOR, PEST/DIS, and CONT/DIS to determine the storage and disposal instructions appropriate for your products.

Item 10C. DIRECTIONS FOR USE - Directions for use must be stated in terms which can be easily read and understood by the average person likely to use or to supervise the use of the pesticide. When followed, directions must be adequate to protect the public from fraud and from personal injury and to prevent unreasonable adverse effects on the environment. [40 CFR 162.10]

COLLATERAL LABELING

Bulletins, leaflets, circulars, brochures, data sheets, flyers, or other written or graphic printed matter which is referred to on the label or which is to accompany the product are termed collateral labeling. Such labeling may not bear claims or representations that differ in substance from those accepted in connection with registration of the product. It should be made part of the response to this notice and submitted for review.

SUMMARY-6

LABELING REQUIREMENTS OF THE FIFRA, AS AMENDED

ITEM	LABEL ELEMENT	APPLICABILITY OF REQUIREMENT	PLACEMENT ON LABEL		COMMENTS
			REQUIRED	PREFERRED	
1	Product name	All products	Front panel	Center front panel	
2	Company name and address	All products	None	Bottom front panel or end of label text	If registrant is not the producer, must be qualified by "Packed for . . .," "Distributed by. . .," etc.
3	Net contents	All products	None	Bottom front panel or end of label text	May be in metric units in addition to U.S. units
4	EPA Reg. No.	All products	None	Front panel	Must be in similar type size and run parallel to other type.
5	EPA Est. No.	All products	None	Front panel, immediately before or following Reg. No.	May appear on the container instead of the label.
6A	Ingredients statement	All products	Front panel	Immediately following product name	Text must run parallel with other text on the panel.
6B	Pounds/gallon statement	Liquid products where dosage given as lbs. ai/unit area	Front panel	Directly below the main ingredients statement	
7	Front panel precautionary statements	All products	Front panel		All front panel precautionary statements must be grouped together, preferably blocked.
7A	Keep Out of Reach of Children (Child hazard warning)	All products	Front panel	Above signal word	Note type size requirements.
7B	Signal word	All products	Front panel	Immediately below child hazard warning	Note type size requirements.

ITEM	LABEL ELEMENT	APPLICABILITY OF REQUIREMENT	PLACEMENT ON LABEL		COMMENTS
			REQUIRED	PREFERRED	
7C	Skull & crossbones and word POISON (in red)	All products which are Category I based on oral, dermal, or inhalation toxicity	Front panel	Both in close proximity to signal word	
7D	Statement of Practical Treatment or First Aid	All products in Categories I, II, and III	Category I: Front panel unless referral statement is used. Others: Grouped with side panel precautionary statements.	Front panel for all.	
7E	Referral statement	All products where precautionary labeling appears on other than front panel.	Front panel		
8	Side/back panel precautionary statements	All products	None	Top or side of back panel preceding directions for use	Must be grouped under the headings in 8A, 8B, and 8C; preferably blocked.
8A	Hazards to humans and domestic animals	All products in Categories I, II, and III	None	Same as above	Must be preceded by appropriate signal word.
8B	Environmental hazards	All products	None	Same as above	Environmental hazards include bee caution where applicable.

ITEM	LABEL ELEMENT	APPLICABILITY OF REQUIREMENT	PLACEMENT ON LABEL		COMMENTS
			REQUIRED	PREFERRED	
8C	Physical or chemical hazards	All pressurized products, others with flash points under 150°F	None	Same as above	Refer to Appendix II guide PHYS/CHEM
9A	Restricted block	All restricted products	Top center of front panel	Preferably blocked	Includes a statement of the terms of restriction. The words "RESTRICTED USE PESTICIDE" must be same type size as signal word.
9B	Misuse statement	All products	Immediately following heading of directions for use		Required statement is: "It is a violation of Federal law to use this product in a manner inconsistent with its labeling."
10A	Reentry statement	PR Notice 83-2 or as determined by the Agency	In the directions for use	Immediately after misuse statement	
10B	Storage and disposal block	All products	In the directions for use	Immediately before specific directions for use or at the end of directions for use	Must be set apart and clearly distinguishable from from other directions for use. Refer to Appendix II guides STOR, CONT/DIS, and PEST/DIS for further information and required statements.
10C	Directions for use	All products	None	None	May be in metric as well as U.S. units

§ 162.10 Labeling requirements.

(a) *General*—(1) *Contents of the label.* Every pesticide products shall bear a label containing the information specified by the Act and the regulations in this Part. The contents of a label must show clearly and prominently the following:

(i) The name, brand, or trademark under which the product is sold as prescribed in paragraph (b) of this section;

(ii) The name and address of the producer, registrant, or person for whom produced as prescribed in paragraph (c) of this section;

(iii) The net contents as prescribed in paragraph (d) of this section;

(iv) The product registration number as prescribed in paragraph (e) of this section;

(v) The producing establishment number as prescribed in paragraph (f) of this section;

(vi) An ingredient statement as prescribed in paragraph (g) of this section;

(vii) Warning or precautionary statements as prescribed in paragraph (h) of this section;

(viii) The directions for use as prescribed in paragraph (i) of this section; and

(ix) The use classification(s) as prescribed in paragraph (j) of this section.

(2) *Prominence and legibility.* (i) All words, statements, graphic representations, designs or other information required on the labeling by the Act or the regulations in this part must be clearly legible to a person with normal vision, and must be placed with such conspicuousness (as compared with other words, statements, designs, or graphic matter on the labeling) and expressed in such terms as to render it likely to be read and understood by the ordinary individual under customary conditions of purchase and use.

(ii) All required label text must:

(A) Be set in 6-point or larger type;

(B) Appear on a clear contrasting background; and

(C) Not be obscured or crowded.

(3) *Language to be used.* All required label or labeling text shall appear in the English language. However, the Agency may require or the applicant may propose additional text in other languages as is considered necessary to protect the public. When additional text in another language is necessary, all labeling requirements will be applied equally to both the English and other-language versions of the labeling.

(4) *Placement of Label*—(i) *General.* The label shall appear on or be securely attached to the immediate container of the pesticide product. For purposes of this Section, and the misbranding provisions of the Act, "securely attached" shall mean that a label can reasonably be expected to remain affixed during the foreseeable conditions and period of use. If the immediate container is enclosed within a wrapper or outside container through which the label cannot be clearly read, the label must also be securely attached to such outside wrapper or container, if it is a part of the package as customarily distributed or sold.

(ii) *Tank cars and other bulk containers*—(A) *Transportation.* While a pesticide product is in transit, the appropriate provisions of 49 CFR Parts 170-189, concerning the transportation of hazardous materials, and specifically those provisions concerning the labeling, marking and placarding of hazardous materials and the vehicles carrying them, define the basic Federal requirements. In addition, when any registered pesticide product is transported in a tank car, tank truck or other mobile or portable bulk container, a copy of the accepted label must be attached to the shipping papers, and left with the consignee at the time of delivery.

(B) *Storage.* When pesticide products are stored in bulk containers, whether mobile or stationary, which remain in the custody of the user, a copy of the label of labeling, including all appropriate directions for use, shall be securely attached to the container in the immediate vicinity of the discharge control valve.

(5) *False or misleading statements.* Pursuant to section 2(q)(1)(A) of the Act, a pesticide or a device declared subject to the Act pursuant to § 162.15, is misbranded if its labeling is false or misleading in any particular including both pesticidal and non-pesticidal claims. Examples of statements or representations in the labeling which constitute misbranding include:

(i) A false or misleading statement concerning the composition of the product;

(ii) A false or misleading statement concerning the effectiveness of the product as a pesticide or device;

(iii) A false or misleading statement about the value of the product for purposes other than as a pesticide or device;

(iv) A false or misleading comparison with other pesticides or devices;

(v) Any statement directly or indirectly implying that the pesticide or device is recommended or endorsed by any agency of the Federal Government;

(vi) The name of a pesticide which contains two or more principal active

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ingredients if the name suggests one or more but not all such principal active ingredients even though the names of the other ingredients are stated elsewhere in the labeling;

(vii) A true statement used in such a way as to give a false or misleading impression to the purchaser;

(viii) Label disclaimers which negate or detract from labeling statements required under the Act and these regulations;

(ix) Claims as to the safety of the pesticide or its ingredients, including statements such as "safe," "nonpoisonous," "noninjurious," "harmless" or "nontoxic to humans and pets" with or without such a qualifying phrase as "when used as directed"; and

(x) Non-numerical and/or comparative statements on the safety of the product, including but not limited to:

(A) "Contains all natural ingredients";

(B) "Among the least toxic chemicals known"

(C) "Pollution approved"

(6) *Final printed labeling.* (i) Except as provided in paragraph (a)(6)(ii) of this section, final printed labeling must be submitted and accepted prior to registration. However, final printed labeling need not be submitted until draft label texts have been provisionally accepted by the Agency.

(ii) Clearly legible reproductions or photo reductions will be accepted for unusual labels such as those silk-screened directly onto glass or metal containers or large bag or drum labels. Such reproductions must be of microfilm reproduction quality.

(b) *Name, brand, or trademark.* (1) The name, brand, or trademark under which the pesticide product is sold shall appear on the front panel of the label.

(2) No name, brand, or trademark may appear on the label which:

(i) Is false or misleading, or

(ii) Has not been approved by the Administrator through registration or supplemental registration as an additional name pursuant to § 162.6(b)(4).

(c) Name and address of producer, registrant, or person for whom produced. An unqualified name and address given on the label shall be considered as the name and address of the producer. If the registrant's name appears on the label and the registrant is not the producer, or if the name of the person for whom the pesticide was produced appears on the label, it must be qualified by appropriate wording such as "Packed for * * *," "Distributed by * * *," or "Sold by * * *" to show that the name is not that of the producer.

(d) *Net weight or measure of contents.* (1) The net weight or measure of content shall be exclusive of wrappers or other materials and shall be the average content unless explicitly stated as a minimum quantity.

(2) If the pesticide is a liquid, the net content statement shall be in terms of liquid measure at 68° F (20°C) and shall be expressed in conventional American units of fluid ounces, pints, quarts, and gallons.

(3) If the pesticide is solid or semisolid, viscous or pressurized, or is a mixture of liquid and solid, the net content statement shall be in terms of weight expressed as avoirdupois pounds and ounces.

(4) In all cases, net content shall be stated in terms of the largest suitable units, i.e., "1 pound 10 ounces" rather than "26 ounces."

(5) In addition to the required units specified, net content may be expressed in metric units.

(6) Variation above minimum content or around an average is permissible only to the extent that it represents deviation unavoidable in good manufacturing practice. Variation below a stated minimum is not permitted. In no case shall the average content of the packages in a shipment fall below the stated average content.

(e) *Product registration number.* The registration number assigned to the pesticide product at the time of registration shall appear on the label, preceded by the phrase "EPA Registration No.," or the phrase "EPA Reg. No." The registration number shall be set in type of a size and style similar to other print on that part of the label on which it appears and shall run parallel to it. The registration number and the required identifying phrase shall not appear in such a manner as to suggest or imply recommendation or endorsement of the product by the Agency.

(f) *Producing establishments registration number.* The producing establishment registration number preceded by the phrase "EPA Est.", of the final establishment at which the product was produced may appear in any suitable location on the label or immediate container. It must appear on the wrapper or outside container of the package if the EPA establishment registration number on the immediate container cannot be clearly read through such wrapper or container.

(g) *Ingredient statement*—(1) *General.* The label of each pesticide product must bear a statement which contains the name and percentage by weight of each active ingredient, the total percentage by weight of all inert ingredients; and if the pesticide contains arsenic in any form, a statement of the percentages of total and water-soluble arsenic calculated as elemental arsenic. The active ingredients must be designated by the term "active ingredients" and the inert ingredients by the term "inert ingredients," or the singular forms of these terms when appropriate. Both terms shall be in the same type size, be aligned to the same margin and be equally prominent. The statement "Inert Ingredients, none" is not required for pesticides which contain 100 percent active ingredients. Unless the ingredient statement is a complete analysis of the pesticide, the term "analysis" shall not be used as a heading for the ingredient statement.

(2) *Position of ingredient statement.* (i) The ingredient statement is normally required on the front panel of the label. If there is an outside container or wrapper through which the ingredient statement cannot be clearly read, the ingredient statement must also appear on such outside container or wrapper. If the size or form of the package makes it impracticable to place the ingredient statement on the front panel of the label, permission may be granted for the ingredient statement to appear elsewhere.

(ii) The text of the ingredient statement must run parallel with other text on the panel on which it appears, and must be clearly distinguishable from and must not be placed in the body of other text.

(3) *Names to be used in ingredient statement.* The name used for each ingredient shall be the accepted common name, if there is one, followed by the chemical name. The common name may be used alone only if it is well known. If no common name has been established, the chemical name alone shall be used. In no case will the use of a trademark or proprietary name be permitted unless such name has been accepted as a common name by the Administrator under the authority of Section 25(c)(6).

(4) *Statements of percentages.* The percentages of ingredients shall be stated in terms of weight-to-weight. The sum of percentages of the active and the inert ingredients shall be 100. Percentages shall not be expressed by a range of values such as "22-25%." If the uses of the pesticide product are expressed as weight of active ingredient per unit area, a statement of the weight of active ingredient per unit volume of the pesticide formulation shall also appear in the ingredient statement.

(5) *Accuracy of stated percentages.* The percentages given shall be as precise as possible reflecting good manufacturing practice. If there may be unavoidable variation between manufacturing batches, the value stated for each active ingredient shall be the lowest percentage which may be present.

(6) *Deterioration.* Pesticides which change in chemical composition significantly must meet the following labeling requirements:

(i) In cases where it is determined that a pesticide formulation changes chemical composition significantly, the product must bear the following statement in a prominent position on the label: "Not for sale or use after [date]."

(ii) The product must meet all label claims up to the expiration time indicated on the label.

(7) *Inert ingredients.* The Administrator may require the name of any inert ingredient(s) to be listed in the ingredient statement if he determines that such ingredient(s) may pose a hazard to man or the environment.

(h) *Warnings and precautionary statements.* Required warnings and precautionary statements concerning the general areas of toxicological hazard including hazard to children, environmental hazard, and physical or chemical hazard fall into two groups; those required on the front panel of the labeling and those which may appear elsewhere. Specific requirements concerning content, placement, type size, and prominence are given below.

(1) *Required front panel statements.* With the exception of the child hazard warning statement, the text required on the front panel of the label is determined by the Toxicity Category of the pesticide. The category is assigned on the basis of the highest hazard shown by any of the indicators in the table below:

Hazard indicators	Toxicity categories			
	I	II	III	IV
Oral LD$_{50}$	Up to and including 50 mg/kg.	From 50 thru 500 mg/kg.	From 500 thru 5000 mg/kg.	Greater than 5000 mg/kg.
Inhalation LC$_{50}$	Up to and including .2 mg/liter.	From .2 thru 2 mg/liter.	From 2. thru 20 mg/liter.	Greater than 20 mg/liter.
Dermal LD$_{50}$	Up to and including 200 mg/kg.	From 200 thru 2000.	From 2,000 thru 20,000.	Greater than 20,000.
Eye effects	Corrosive; corneal opacity not reversible within 7 days.	Corneal opacity reversible within 7 days; irritation persisting for 7 days.	No corneal opacity; irritation reversible within 7 days.	No irritation.
Skin effects	Corrosive	Severe irritation at 72 hours.	Moderate irritation at 72 hours.	Mild or slight irritation at 72 hours.

(i) *Human hazard signal word*—(A) *Toxicity Category I.* All pesticide products meeting the criteria of Toxicity Category I shall bear on the front panel the signal word "Danger." In addition if the product was assigned to Toxicity Category I on the basis of its oral, inhalation or dermal toxicity (as distinct from skin and eye local effects) the word "Poison" shall appear in red on a background of distinctly contrasting color and the skull and crossbones shall appear in immediate proximity to the word "poison."

(B) *Toxicity Category II.* All pesticide products meeting the criteria of Toxicity Category II shall bear on the front panel the signal word "Warning."

(C) *Toxicity Category III.* All pesticide products meeting the criteria of Toxicity Category III shall bear on the front panel the signal word "Caution."

(D) *Toxicity Category IV.* All pesticide products meeting the criteria of Toxicity Category IV shall bear on the front panel the signal word "Caution."

(E) *Use of signal words.* Use of any signal word(s) associated with a higher Toxicity Category is not permitted except when the Agency determines that such labeling is necessary to prevent unreasonable adverse effects on man or the environment. In no case shall more than one human hazard signal word appear on the front panel of a label.

(ii) *Child hazard warning.* Every pesticide product label shall bear on the front panel the statement "keep out of reach of children." Only in cases where the likelihood of contact with children during distribution, marketing, storage or use is demonstrated by the applicant to be extremely remote, or if the nature of the pesticide is such that it is approved for use on infants or small children, may the Administrator waive this requirement.

(iii) *Statement of practical treatment*—(A) *Toxicity Category I.* A statement of practical treatment (first aid or other) shall appear on the front panel of the label of all pesticides falling into Toxicity Category I on the basis of oral, inhalation or dermal toxicity. The Agency may, however, permit reasonable variations in the placement of the statement of practical treatment is some reference such as "See statement of practical treatment on back panel" appears on the front panel near the word "Poison" and the skull and crossbones.

(B) *Other toxicity categories.* The statement of practical treatment is not required on the front panel except as described in paragraph (h)(1)(iii)(A) of this section. The applicant may, however, include such a front panel statement at his option. Statements of practical treatment are, however, required elsewhere on the label in accord with paragraph (h)(2) of this section if they do not appear on the front panel.

(iv) *Placement and prominence.* All the require front panel warning statements shall be grouped together on the label, and shall appear with sufficient prominence relative to other front panel text and graphic material to make them unlikely to be overlooked under customary conditions of purchase and use. The following table shows the minimum type size requirements for the front panel warning statements on various sizes of labels:

Size of label front panel in square inches	Points	
	Required signal word, all capitals	"Keep out of reach of children"
5 and under	6	6
Above 5 to 10	10	6
Above 10 to 15	12	8
Above 15 to 30	14	10
Over 30	18	12

(2) *Other required warnings and precautionary statements.* The warnings and precautionary statements as required below shall appear together on the label under the general heading "Precautionary Statements" and under appropriate subheadings of "Hazard to Humans and Domestic Animals," "Environmental Hazard" and "Physical or Chemical Hazard."

(i) *Hazard to humans and domestic animals.* (A) Where a hazard exists to humans or domestic animals, precautionary statements are required indicating the particular hazard, the route(s) of exposure and the precautions to be taken to avoid accident, injury or damage. The precautionary paragraph shall be immediately preceded by the appropriate hazard signal word.

(B) The following table depicts typical precautionary statements. These statements must be modified or expanded to reflect specific hazards.

Toxicity category	Precautionary statements by toxicity category	
	Oral, inhalation, or dermal toxicity	Skin and eye local effects
I	Fatal (poisonous) if swallowed [inhaled or absorbed through skin]. Do not breathe vapor [dust or spray mist]. Do not get in eyes, on skin, or on clothing [Front panel statement of practical treatment required.]	Corrosive, causes eye and skin damage [or skin irritation]. Do not get in eyes, on skin, or on clothing. Wear goggles or face shield and rubber gloves when handling. Harmful or fatal if swallowed. [Appropriate first aid statement required.]
II	May be fatal if swallowed [inhaled or absorbed through the skin]. Do not breathe vapors [dust or spray mist]. Do not get in eyes, on skin, or on clothing. [Appropriate first aid statements required.]	Causes eye [and skin] irritation. Do not get in eyes, on skin, or on clothing. Harmful if swallowed. [Appropriate first aid statement required.]
III	Harmful if swallowed [inhaled or absorbed through the skin]. Avoid breathing vapors [dust or spray mist]. Avoid contact with skin [eyes or clothing]. [Appropriate first aid statement required.]	Avoid contact with skin, eyes or clothing. In case of contact immediately flush eyes or skin with plenty of water. Get medical attention if irritation persists.
IV	[No precautionary statements required.]	[No precautionary statements required.]

(ii) *Environmental hazards.* Where a hazard exists to non target organisms excluding humans and domestic animals, precautionary statements are required stating the nature of the hazard and the appropriate precautions to avoid potential accident, injury or damage. Examples of the hazard statements and the circum-

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stances under which they are required follow:

(A) If a pesticide intended for outdoor use contains an active ingredient with a mammalian acute oral LD_{50} of 100 or less, the statement "This Pesticide is Toxic to Wildlife" is required.

(B) If a pesticide intended for outdoor use contains an active ingredient with a fish acute LC_{50} of 1 ppm or less, the statement "This Pesticide is Toxic to Fish" is required.

(C) If a pesticide intended for outdoor use contains an active ingredient with an avian acute oral LD_{50} of 100 mg/kg or less, or a subacute dietary LC_{50} of 500 ppm or less, the statement "This Pesticide is Toxic to Wildlife" is required.

(D) If either accident history or field studies demonstrate that use of the pesticide may result in fatality to birds, fish or mammals, the statement "This pesticide is extremely toxic to wildlife (fish)" is required.

(E) For uses involving foliar application to agricultural crops, forests, or shade trees, or for mosquito abatement treatments, pesticides toxic to pollinating insects must bear appropriate label cautions.

(F) For all outdoor uses other than aquatic applications the label must bear the caution "Keep out of lakes, ponds or streams. Do not contaminate water by cleaning of equipment or disposal of wastes."

(iii) *Physical or chemical hazards.* Warning statements on the flammability or explosive characteristics of the pesticide are required as follows:

Flash point	Required text
(A) PRESSURIZED CONTAINERS	
Flash point at or below 20° F; if there is a flashback at any valve opening.	Extremely flammable. Contents under pressure. Keep away from fire, sparks, and heated surfaces. Do not puncture or incinerate container. Exposure to temperatures above 130° F may cause bursting.
Flash point above 20° F and not over 80° F or if the flame extension is more than 18 in long at a distance of 6 in from the flame.	Flammable. Contents under pressure. Keep away from heat, sparks, and open flame. Do not puncture or incinerate container. Exposure to temperatures above 130° F may cause bursting.
All other pressurized containers	Contents under pressure. Do not use or store near heat or open flame. Do not puncture or incinerate container. Exposure to temperatures above 130° F may cause bursting.
(B) NONPRESSURIZED CONTAINERS	
At or below 20° F	Extremely flammable. Keep away from fire, sparks, and heated surfaces.
Above 20° F and not over 80° F	Flammable. Keep away from heat and open flame.
Above 80° F and not over 150° F	Do not use or store near heat or open flame.

(i) *Directions for Use*—(1) *General requirements*—(i) *Adequacy and clarity of directions.* Directions for use must be stated in terms which can be easily read and understood by the average person likely to use or to supervise the use of the pesticide. When followed, directions must be adequate to protect the public from fraud and from personal injury and to prevent unreasonable adverse effects on the environment.

(ii) *Placement of directions for use.* Directions may appear on any portion of the label provided that they are conspicuous enough to be easily read by the user of the pesticide product. Directions for use may appear on printed or graphic matter which accompanies the pesticide provided that:

(A) If required by the Agency, such printed or graphic matter is securely attached to each package of the pesticide, or placed within the outside wrapper or bag;

(B) The label bears a reference to the directions for use in accompanying leaflets or circulars, such as "See directions in the enclosed circular:" and

(C) The Administrator determines that it is not necessary for such directions to appear on the label.

(iii) *Exceptions to requirement for direction for use*—(A) Detailed directions for use may be omitted from labeling of pesticides which are intended for use only by manufacturers of products other than pesticide products in their regular manufacturing processes, provided that:

(*1*) The label clearly shows that the product is intended for use only in manufacturing processes and specifies the type(s) of products involved.

(*2*) Adequate information such as technical data sheets or bulletins, is available to the trade specifying the type of product involved and its proper use in manufacturing processes;

(*3*) The product will not come into the hands of the general public except after incorporation into finished products; and

(*4*) The Administrator determines that such directions are not necessary to prevent unreasonable adverse effects on man or the environment.

(B) Detailed directions for use may be omitted from the labeling of pesticide products for which sale is limited to physicians, veterinarians, or druggists, provided that:

(*1*) The label clearly states that the product is for use only by physicians or veterinarians;

(*2*) The Administrator determines that such directions are not necessary to prevent unreasonable adverse effects on man or the environment; and

(*3*) The product is also a drug and regulated under the provisions of the Federal Food, Drug and Cosmetic Act.

(C) Detailed directions for use may be omitted from the labeling of pesticide products which are intended for use only by formulators in preparing pesticides for sale to the public, provided that:

(*1*) There is information readily available to the formulators on the composition, toxicity, methods of use, applicable restrictions or limitations, and effectiveness of the product for pesticide purposes;

(*2*) The label clearly states that the product is intended for use only in manufacturing, formulating, mixing, or repacking for use as a pesticide and specifies the type(s) of pesticide products involved;

(*3*) The product as finally manufactured, formulated, mixed, or repackaged is registered; and

(*4*) The Administrator determines that such directions are not necessary to prevent unreasonable adverse effects on man or the environment.

(2) *Contents of Directions for Use.* The directions for use shall include the following, under the headings "Directions for Use":

(i) The statement of use classification as prescribed in 162.10(j) immediately under the heading "Directions for Use."

(ii) Immediately below the statement of use classification, the statement "It is a violation of Federal law to use this product in a manner inconsistent with its labeling."

(iii) The site(s) of application, as for example the crops, animals, areas, or objects to be treated.

(iv) The target pest(s) associated with each site.

(v) The dosage rate associated with each site and pest.

(vi) The method of application, including instructions for dilution, if required, and type(s) of application apparatus or equipment required.

(vii) The frequency and timing of applications necessary to obtain effective results without causing unreasonable adverse effects on the environment.

(viii) Specific limitations on reentry to areas where the pesticide has been applied, meeting the requirements concerning reentry provided by 40 CFR Part 170.

(ix) Specific directions concerning the storage and disposal of the pesticide and its container, meeting the requirements of 40 CFR Part 165. These instructions shall be grouped and appear under the heading "Storage and Disposal." This heading must be set in type of the same minimum sizes as required for the child hazard warning. (See Table in § 162.10(h)(1)(iv))

(x) Any limitations or restrictions on use required to prevent unreasonable adverse effects, such as:

(A) Required intervals between application and harvest of food or feed crops.

(B) Rotational crop restrictions.

(C) Warnings as required against use on certain crops, animals, objects, or in or adjacent to certain areas.

(D) [Reserved]

(E) For restricted use pesticides, a statement that the pesticide may be applied under the direct supervision of a certified applicator who is not physically present at the site of application but nonetheless available to the person applying the pesticide, unless the Agency has determined that the pesticide may only be applied under the direct supervision of a certified applicator who is physically present.

(F) Other pertinent information which the Administrator determines to be necessary for the protection of man and the environment.

(j) *Statement of Use Classification.* By October 22, 1976, all pesticide products must bear on their labels a statement of use classification as described in paragraphs (j) (1) and (2) of this section. Any pesticide product for which some uses are classified for general use and others for restricted use shall be separately labeled according to the labeling standards set forth in this subsection, and shall be marketed as separate products with different registration numbers, one bearing directions only for general use(s) and the other bearing directions for restricted use(s) except that, if a product has both restricted use(s) and general use(s), both of these uses may appear on a product labeled for restricted use. Such products shall be subject to the provisions of § 162.10(j)(2).

(1) *General Use Classification.* Pesticide products bearing directions for use(s) classified general shall be labeled with the exact words "General Classification" immediately below the heading "Directions for Use." And reference to the general classification that suggests or implies that the general utility of the pesticide extends beyond those purposes and uses contained in the Directions for Use will be considered a false or misleading statement under the statutory definitions of misbranding.

(2) *Restricted Use Classification.* Pesticide products bearing direction for use(s) classified restricted shall bear statements of restricted use classification on the front panel as described below:

(i) *Front panel statement of restricted use classification.* (A) At the top of the front panel of the label, set in type of the same minimum sizes as required for human hazard signal words (see table in § 162.10(h)(1)(iv)), and appearing with sufficient prominence relative to other text and graphic material on the front panel to make it unlikely to be overlooked under customary conditions of purchase and use, the statement "Restricted Use Pesticide" shall appear.

(B) Directly below this statement on the front panel, a summary statement of the terms of restriction imposed as a precondition to registration shall appear. If use is restricted to certified applicators, the following statement is required: "For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification." If, however, other regulatory restrictions are imposed, the Administrator will define the appropriate wording for the terms of restriction by regulation.

(k) Advertising. [Reserved]

[40 FR 28268, July 3, 1975; 40 FR 32329, Aug. 1, 1975; 40 FR 36571, Aug. 21, 1975, as amended at 43 FR 5786, Feb. 9, 1978]

PHYS/CHEM-1

PHYSICAL/CHEMICAL HAZARDS

Criteria	Required Label Statement
I. Pressurized Containers	
A. Flashpoint at or below 20°F; or if there is a flashback at any valve opening.	Extremely flammable. Contents under pressure. Keep away from fire, sparks, and heated surfaces. Do not puncture or incinerate container. Exposure to temperatures above 130°F may cause bursting.
B. Flashpoint above 20°F and not over 80°F; or if the flame extension is more than 18 inches long at a distance of 6 inches from the valve opening.	Flammable. Contents under pressure. Keep away from heat, sparks, and flame. Do not puncture or incinerate container. Exposure to temperatures above 130°F may cause bursting.
C. All Other Pressurized Containers	Contents under pressure. Do not use or store near heat or open flame. Do not puncture or incinerate container. Exposure to temperatures above 130°F may cause bursting.
II. Non-Pressurized Containers	
A. Flashpoint at or below 20°F.	Extremely flammable. Keep away from fire, sparks, and heated surfaces.
B. Flashpoint above 20°F and not over 80°F.	Flammable. Keep away from heat and open flame.
C. Flashpoint over 80°F and not over 150°F.	Do not use or store near heat and open flame.
D. Flashpoint above 150°F.	None required.

STOR-1

STORAGE INSTRUCTIONS FOR PESTICIDES

Heading:

All products are required to bear specific label instructions about storage and disposal. Storage and disposal instructions must be grouped together in the directions for use portion of the label under the heading STORAGE AND DISPOSAL. Products intended solely for domestic use need not include the heading "STORAGE AND DISPOSAL."

Storage Instructions:

All product labels are required to have appropriate storage instructions. Specific storage instructions are not prescribed. Each registrant must develop his own storage instructions, considering, when applicable, the following factors:

1. Conditions of storage that might alter the composition or usefulness of the pesticide. Examples could be temperature extremes, excessive moisture or humidity, heat, sunlight, friction, or contaminating substances or media.
2. Physical requirements of storage which might adversely affect the container of the product and its ability to continue to function properly. Requirements might include positioning of the container in storage, storage or damage due to stacking, penetration of moisture, and ability to withstand shock or friction.
3. Specifications for handling the pesticide container, including movement of container within the storage area, proper opening and closing procedures (particularly for opened containers), and measures to minimize exposure while opening or closing container.
4. Instructions on what to do if the container is damaged in any way, or if the pesticide is leaking or has been spilled, and precautions to minimize exposure if damage occurs.
5. General precautions concerning locked storage, storage in original container only, and separation of pesticides during storage to prevent cross-contamination of other pesticides, fertilizer, food, and feed.
6. General storage instructions for household products should emphasize storage in original container and placement in locked storage areas.

CONT/DIS-1

CONTAINER DISPOSAL INSTRUCTIONS

The label of each product must bear container disposal instructions appropriate to the type of container.

1. Domestic use products must bear one of the following container disposal statements:

Container Type	Statement
Non-aerosol products (bottles, cans, jars)	Do not reuse container (bottle, can, jar). Rinse thoroughly before discarding in trash.
Non-aerosol products (bags)	Do not reuse bag. Discard bag in trash.
Aerosol products	Replace cap and discard containers in trash. Do not incinerate or puncture.

2. All other products must bear container disposal instructions, based on container type, listed below:

Container Type	Statement
Metal containers (non-aerosol)	Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.
Plastic containers	Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.
Glass containers	Triple rinse (or equivalent). Then dispose of in a sanitary landfill or by other approved state and local procedures.
Fiber drums with liners	Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application equipment. Then dispose of liner in a sanitary landfill or by incineration if allowed by state and local authorities. If drum is contaminated and cannot be reused[1], dispose of in the same manner.
Paper and plastic bags	Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.
Compressed gas cylinders	Return empty cylinder for reuse (or similar wording)

1/ Manufacturer may replace this phrase with one indicating whether and how fiber drum may be reused.

PESTICIDE DISPOSAL INSTRUCTIONS

The label of all products, except those intended solely for domestic use, must bear explicit instructions about pesticide disposal. The statements listed below contain the exact wording that must appear on the label of these products:

1. The labels of all products, except domestic use, must contain the statement, "Do not contaminate water, food, or feed by storage or disposal."

2. Except those products intended solely for domestic use, the labels of all products that contain active ingredients that are Acute Hazardous Wastes (see list in this Appendix) or are assigned to Toxicity Category I on the basis of oral or dermal toxicity, skin or eye irritation potential, or Toxicity Category I or II on the basis of acute inhalation toxicity must bear the following pesticide disposal statement:

   "Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance."

3. The labels of all products, except those intended for domestic use, containing active or inert ingredients that are Toxic Hazardous Wastes (see list in this Appendix) or meet any of the criteria in 40 CFR 261, Subpart C for a hazardous waste must bear the following pesticide disposal statement:

   "Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance."

4. Labels for all other products, except those intended for domestic use, must bear the following pesticide disposal statement:

   "Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility."

5. Products intended for domestic use only must bear the following disposal statement: "Securely wrap original container in several layers of newspaper and discard in trash."

PEST/DIS-2

PESTICIDE ACTIVE INGREDIENTS THAT ARE ACUTE HAZARDOUS WASTES

I. PESTICIDES ON THE "E" LIST (with RCRA # and CAS #) [40 CFR 261.33(e)]

Acrolein	P003	107-13-1
Aldicarb	P070	116-06-3
Aldrin	P004	309-00-2
Allyl alcohol	P005	107-18-6
Aluminum phosphide	P006	1302-45-0
4-Aminopyridine (Avitrol)	P008	504-24-5
Arsenic acid	P010	7778-39-4
Arsenic pentoxide	P011	1303-28-2
Arsenic trioxide	P012	1327-53-3
Calcium cyanide	P021	592-01-8
Carbon disulfide	P022	75-15-0
p-Chloroaniline	P024	106-47-8
Cyanides (soluble cyanide salts not otherwise specified)	P030	
Cyanogen chloride	P031	506-77-4
Dieldrin	P037	60-57-1
O,O-Diethyl S-[2-ethylthio)ethyl] phosphorodithioate (disulfoton)	P039	298-04-4
O,O-Diethyl O-pyrazinyl phosphorothioate (Zinophos®)	P040	297-97-2
Dimethoate	P044	60-51-5
O,O-Dimethyl O-p-nitrophenyl phosphorothioate (methyl parathion)	P071	298-00-0
4,6-Dinitro-o-cresol and salts	P047	534-52-1
4,6-Dinitro-o-cyclohexylphenol	P034	131-89-5
Dinoseb	P020	88-85-7
Endosulfan	P050	115-29-7
Endothall	P088	129-67-9
Endrin	P051	72-20-8
Famphur	P097	52-85-7
Fluoroacetamide	P057	640-19-7
Heptachlor	P059	76-48-8
Hexachlorohexahydro-exo,exo-dimethanonaphthalene (Isodrin)	P069	465-73-6
Hydrocyanic acid	P063	74-90-8
Methomyl	P066	16752-77-5
alpha-Naphthylthiourea (ANTU)	P072	86-88-41
Nicotine and salts	P075	54-11-5
Octamethylpyrophosphoramide (OMPA, schradan)	P085	152-16-9
Parathion	P089	56-38-2
Phenylmercuric acetate (PMA)	P092	62-38-4
Phorate	P094	298-02-2
Potassium cyanide	P098	151-50-8
Propargyl alcohol	P102	107-19-7
Sodium azide	P105	26628-22-8
Sodium cyanide	P106	143-33-9
Sodium fluoroacetate	P058	62-74-8

Strychnine and salts	P108	57-24-9 60-41-3
O,O,O,O-Tetraethyl dithiopyrophosphate (sulfotepp)	P109	3689-24-5
Tetraethyl pyrophosphate	P111	107-49-3
Thallium sulfate	P115	7446-18-6
Thiofanox	P045	39196-18-4
Toxaphene	P123	8001-35-2
Warfarin (>0.3%)	P001	81-81-2
Zinc phosphide (>10%)	P122	1314-84-7

50 ACTIVES

II. PESTICIDES DERIVED FROM TRI-, TETRA-, AND PENTACHLOROPHENOLS [40 CFR 261.31]

2-Chloroethyl 2-(2,4,6-trichlorophenoxy) ethyl ether	F027	5324-22-1
Dehydroabietylammonium pentachlorophenoxide	F027	35109-57-0
Erbon	F027	136-25-4
O-ethyl O-(2,4,5-trichlorophenyl) ethylphosphonothioate	F027	327-98-0
2,2'-Methylenebis (3,4,6-trichlorophenol) (Hexachlorophene)	F027	70-30-4
—Potassium salt of	F027	67923-62-0
—Sodium salt of	F027	3247-34-5
—Disodium salt of	F027	5736-15-2
Pentachlorophenol	F027	87-86-5
—Potassium salt of	F027	7778-73-6
—Sodium salt of	F027	131-52-2
—Zinc salt of	F027	2917-32-0
—Zinc salt of N-alkyl (C_{16}-C_{18})-1,3-propanediamine	F027	
—Pentachlorophenyl laurate	F027	3772-94-9
Potassium trichlorophenate (2,4,6)	F027	2591-21-1
Potassium trichlorophenate (2,4,5)	F027	35471-43-3
Silvex	F027	93-72-1
—2-Butoxyethyl ester	F027	19398-13-1
—Butoxypolypropoxypropyl ester	F027	53404-07-2
—Butoxypropyl ester	F027	25537-26-2
—Diethanolamine salt	F027	51170-59-3
—Diisopropanolamine salt	F027	53404-09-4
—Dimethylamine salt	F027	55617-85-1
—Dipropylene glycol isobutyl ether ester	F027	53535-26-5
—Ethanolamine salt	F027	7374-47-2
—2-Ethylhexyl ester	F027	53404-76-5
—Isooctyl ester	F027	53404-14-1

—Isopropanolamine salt	F027	53404-13-0
—Monohydroxylaluminum salt	F027	69622-82-8
—Polypropoxypropyl ester	F027	83562-66-7
—Potassium salt	F027	2818-16-8
—Propylene glycol isobutyl ether ester	F027	53466-84-5
—Sodium salt	F027	37913-89-6
—Triethanolamine salt	F027	17369-89-0
—Triethylamine salt	F027	53404-74-3
—Triisopropanolamine salt	F027	53404-75-4
—Tripropylene glycol isobutyl ether ester	F027	53535-30-1
Sodium 2-(2,4,5-trichlorophenoxy) ethyl sulfate	F027	3570-61-4
Tetrachlorophenols	F027	25167-83-3
—Alkylamine*amine salt (as in fatty acids of coconut oil)	F027	
—Potassium salt	F027	53535-27-6
—Sodium salt	F027	25567-55-9
2,4,5-Trichlorophenol	F027	95-95-4
2,4,6-Trichlorophenol	F027	88-06-2
2,4,5-Trichlorophenol salt of 2,6-bis[(dimethylamino)methyl] cyclohexanone	F027	53404-83-4
2,4,5-Trichlorophenol, sodium salt	F027	136-32-3
2,4,6-Trichlorophenol, sodium salt	F027	3784-03-0
2,4,5-Trichlorophenoxyacetic acid	F027	93-79-8
—Alkyl C-12 amine salt	F027	53404-84-5
—Alkyl C-13 amine salt	F027	53404-85-6
—Alkyl C-14 amine salt	F027	53535-37-8
—N,N-diethylethanolamine salt	F027	53404-86-7
—Dimethylamine salt	F027	6369-97-7
—N,N-dimethyllinoleylamine salt	F027	53404-88-9
—N,N-dimethyloleylamine salt	F027	53404-89-0
—N-oleyl-1,3-propylene diamine salt	F027	53404-87-8
—Sodium salt	F027	13560-99-1
—Triethanolamine salt	F027	3813-14-7
—Triethylamine salt	F027	2008-46-0
—Alkyl (C3H7 - C7H9) ester	F027	
—Amyl ester	F027	120-39-8
—Butoxyethoxypropyl ester	F027	1928-58-1
—2-Butoxyethyl ester	F027	2545-59-7
—Butoxypropyl ester	F027	1928-48-9
—Butyl ester	F027	93-79-8
—Dipropylene glycol isobutyl ether ester	F027	53535-31-2
—2-Ethylhexyl ester	F027	1928-47-8
—Isobutyl ester	F027	4938-72-1

—Isopropyl ester	F027	93-78-7
—Propylene glycol isobutyl ether ester	F027	53466-86-7
—Tripropylene glycol isobutyl ether ester	F027	53535-32-3
4-(2,4,5-Trichlorophenoxy)butyric acid [2,4,5-TB]	F027	93-80-1
2-(2,4,5-Trichlorophenoxy)ethyl hydrogen sulfate [2,4,5-TES]	F027	69633-04-1
1,4',5'-Trichloro-2'-(2,4,5-trichlorophenoxy) methanesulfonanilide [Edolan U]	F027	69462-14-2

PEST/DIS-6

PESTICIDES THAT ARE TOXIC HAZARDOUS WASTES

PESTICIDES ON THE "F" LIST [40 CFR 261.33(f)]	(with RCRA #, and	CAS #
Acetone	U002	67-64-1
Acrylonitrile*	U009	107-13-1
Amitrole	U011	61-82-5
Benzene*	U019	71-43-2
Bis(2-ethylhexyl)phthalate	U028	117-81-7
Cacodylic acid	U136	75-60-5
Carbon tetrachloride*	U211	56-23-5
Chloral (hydrate) (chloroacetaldehyde)	U034	302-17-0
Chlordane, technical*	U036	57-74-9
Chlorobenzene*	U037	108-90-7
4-Chloro-m-cresol	U039	59-50-7
Chloroform*	U044	67-66-3
o-Chlorophenol	U048	95-57-8
Creosote	U051	8021-39-4
Cresylic acid (cresols)*	U052	1319-77-3
Cyclohexane	U056	110-82-7
Cyclohexanone	U057	108-94-1
Decachlorooctahydro-1,3,4-metheno-2H-cyclobuta[c,d]-pentalen-2-one (Kepone, chlordecone)	U142	143-50-0
1,2-Dibromo-3-chloropropane (DBCP)	U066	96-12-8
Dibutyl phthalate	U069	84-74-2
S-2,3-(Dichloroallyl diisopropylthiocarbamate) (diallate,Avadex)	U062	2303-16-4
o-Dichlorobenzene*	U070	95-50-1
p-Dichlorobenzene*	U072	106-46-7
Dichlorodifluoromethane (Freon 12®)	U075	75-71-8
3,5-Dichloro-N-(1,1-dimethyl-2-propynyl) benzamide (pronamide, Kerb®)	U192	23950-58-5
Dichloro diphenyl dichloroethane (DDD)	U060	72-54-8
Dichloro diphenyl trichloroethane (DDT)	U061	50-29-3
Dichloroethyl ether	U025	1191-17-9
2,4-Dichlorophenoxyacetic, salts and esters (2,4-D)*	U240	94-75-7
1,2-Dichloropropane	U083	8003-19-8
1,3-Dichloropropene (Telone)	U084	542-75-6
Dimethyl phthalate	U102	131-11-3
Epichlorohydrin (1-chloro-2,3-epoxypropane)	U041	106-89-8
Ethyl acetate	U112	141-78-6
Ethyl 4,4'-dichlorobenzilate (chlorobenzilate)	U038	510-15-6

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*Proposed for deletion by TCLP proposal

Ethylene dibromide (EDB)	U067	106-93-4
Ethylene dichloride*	U077	107-06-2
Ethylene oxide	U115	75-21-8
Formaldehyde	U122	50-00-0
Furfural	U125	98-01-1
Hexachlorobenzene*	U127	118-74-1
Hexachlorocyclopentadiene	U130	77-47-4
Hexachloroethane*	U131	67-72-1
Hydrofluoric acid	U134	7664-39-3
Isobutyl alcohol*	U140	78-83-1
Lead acetate	U144	301-04-2
Lindane*	U129	58-89-9
Maleic hydrazide	U148	123-33-1
Mercury	U151	7439-97-6
Methoxychlor*	U247	72-43-5
Methyl alcohol (methanol)	U154	67-56-1
Methyl bromide	U029	74-83-9
Methyl chloride	U045	74-87-3
2,2'-Methylenebis (3,4,6-trichlorophenol) (hexachlorophene) [acute waste per 261.31]	U132	70-30-4
Methylene chloride*	U080	75-09-2
Methyl ethyl ketone*	U159	78-93-3
4-Methyl-2-pentanone (methyl isobutyl ketone)	U161	108-10-1
Naphthalene	U165	91-20-3
Nitrobenzene*	U169	98-95-3
p-Nitrophenol	U170	100-02-7
Pentachloroethane	U184	76-01-7
Pentachloronitrobenzene (PCNB)	U185	82-68-8
Pentachlorophenol* [acute waste per 261.31]	U242	87-86-5
Phenol*	U188	108-95-2
Pyridine*	U196	110-86-1
Resorcinol	U201	108-46-3
Safrole	U203	94-59-7
Selenium disulfide	U205	7488-56-4
Silvex [acute waste per 261.31]	U233	93-72-1
1,1,2,2-Tetrachloroethane*	U209	79-34-5
Tetrachloroethylene*	U210	127-18-4
2,3,4,6-Tetrachlorophenol* [acute waste per 261.31]	U212	
Thiram	U244	137-26-8
Toluene*	U220	108-88-3
1,1,1-Trichloroethane* (methyl chloroform)	U226	71-55-6
Trichloroethylene*	U228	79-01-6
Trichloromonofluoromethane (Freon 11®)	U121	75-69-4
2,4,5-Trichlorophenol* [acute waste per 261.31]	U230	95-95-4
2,4,6-Trichlorophenol* [acute waste per 261.31]	U231	88-06-2

2,4,5-Trichlorophenoxyacetic acid (2,4,5-T)* [acute waste per 261.31]	U232	93-76-5
Warfarin (<0.3%)	U248	81-81-2
Xylene	U239	1330-20-7
Zinc phosphide (<10%)	U249	1314-84-7

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CONT/DIS-1

CONTAINER DISPOSAL INSTRUCTIONS

The label of each product must bear container disposal instructions appropriate to the type of container.

1. Domestic use products must bear one of the following container disposal statements:

Container Type	Statement
Non-aerosol products (bottles, cans, jars)	Do not reuse container (bottle, can, jar). Rinse thoroughly before discarding in trash.
Non-aerosol products (bags)	Do not reuse bag. Discard bag in trash.
Aerosol products	Replace cap and discard containers in trash. Do not incinerate or puncture.

2. All other products must bear container disposal instructions, based on container type, listed below:

Container Type	Statement
Metal containers (non-aerosol)	Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.
Plastic containers	Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.
Glass containers	Triple rinse (or equivalent). Then dispose of in a sanitary landfill or by other approved state and local procedures.
Fiber drums with liners	Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application equipment. Then dispose of liner in a sanitary landfill or by incineration if allowed by state and local authorities. If drum is contaminated and cannot be reused[1], dispose of in the same manner.
Paper and plastic bags	Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.
Compressed gas cylinders	Return empty cylinder for reuse (or similar wording)

[1] Manufacturer may replace this phrase with one indicating whether and how fiber drum may be reused.

III. USE INDEX APPENDIX

EPA Index to Pesticide Chemicals

PROPARGITE

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PROPARGITE

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097601

PROPARGITE*

TYPE PESTICIDE: Acaricide

FORMULATIONS:

Tech	(85%)
FI	(25%)
D	(4%)
WP	(30%)
EC	(5 lb/gal, 6 lb/gal, 6.55 lb/gal)

GENERAL WARNINGS AND LIMITATIONS: Do not mix with alkaline materials such as lime, lime sulfur, or bordeaux mixture as the effectiveness of propargite will be reduced. Mixer/loaders must wear goggles or a face shield, waterproof apron, long-sleeve shirt, long pants, and unlined waterproof gloves. Applicators must wear a long-sleeve shirt and long pants while applying this pesticide. Applicators must also wear a wide-brimmed hat during upward directed spraying. Leaf injury and fruit spotting may occur if the following conditions are not observed: 1) do not apply when air temperatures are above 90 F (32.2 C) unless otherwise specified; 2) do not tank mix with azinphos methyl emulsifiable concentrates; 3) do not tank mix with horticultural oil sprays or within 14 days prior to or following a horticultural oil spray; 4) do not apply with spray adjuvants. Do not enter or allow entry into treated areas within 24 hours unless protective clothing is worn. Thorough coverage is essential for effective control. Refer to appropriate labeling for ENDANGERED SPECIES RESTRICTIONS.

Agricultural Crop Tolerances (other than those listed in the text):	
Tea, dried	10 ppm

Dairy, Livestock, and Poultry Tolerances:	
Cattle (fat, meat, meat byproducts)	0.1 ppm
Eggs	0.1 ppm
Goats (fat, meat, meat byproducts)	0.1 ppm
Hogs (fat, meat, meat byproducts)	0.1 ppm
Horses (fat, meat, meat byproducts)	0.1 ppm
Milk	0.08 ppm
Milk (fat)	2 ppm
Poultry (fat, meat, meat byproducts)	0.1 ppm
Sheep (fat, meat, meat byproducts)	0.1 ppm

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*2-(p-tert-butylphenoxy)cyclohexyl 2-propynyl sulfite
Omite

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PROPARGITE

	Site and Pest	Dosages and Formulation(s)	Tolerance, Use, Limitations
	TERRESTRIAL FOOD CROP		
	(Agricultural Crops)		
	General Warnings and Limitations: Do not graze or feed livestock on cover crops grown among the trees and vines listed in this report.		
23001BA	Alfalfa (seed crop)		No tolerance established. This use only occurs on Special Local Need (24-C) labeling and has not been characterized in this entry. Refer to appropriate labeling for use information and limitations.
33001AA	Almond		0.1 ppm (almond) 55 ppm (almond, hulls) 28 day preharvest interval through 6.75 pounds per acre (wettable powder) and 3 pounds per acre (emulsifiable concentrate) for foliar application. Do not make more than 2 applications per year.
AVABA AVASA AVBAA AVBDA	Clover mite European red mite Pacific spider mite Strawberry spider mite	1.35-6.75 lb/A (30% WP)	Use limited to CA. Foliar application. Apply in 500 to 1,500 gallons of water per acre.
AVBEA	Twospotted spider mite	2.25-3 lb/A (6 lb/gal EC)	Use limited to CA. Foliar application. Apply in a minimum of 15 gallons of water per acre by aircraft and in a minimum of 50 gallons of water per acre by ground equipment.

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	Site and Pest	Dosages and Formulation(s)	Tolerance, Use, Limitations
/04001AA	Apple		3 ppm 80 ppm (dried pomace) 7 day preharvest interval through 3.75 pounds per acre for foliar application. Do not make more than 3 applications per year. Do not tank mix with diazinon when temperatures are expected to exceed 95 F (35.0 C).
ILAVASA ILAVBAA ILAVBEA	European red mite Pacific spider mite Twospotted spider mite	dilute 0.3125-0.469 lb/100 gal [400-800 gal/A] or concentrate 1.25-3.75 lb/A [in 50-100 gal/A] (5 lb/gal EC)	Foliar application.
ILAVASA ILAVAYA	European red mite McDaniel spider mite	1.5-3.6 lb/A (30% WP)	Foliar application. Apply in 500 to 800 gallons of water per acre.
ILAVBAA ILAVBEA	Pacific spider mite Twospotted spider mite	0.375-0.45 lb/100 gal [400-800 gal/A] (30% WP)	Foliar application. For use in areas east of the Rocky Mountains. Do not reduce the rate per acre when applying by concentrate equipment.
/05001AA	Apricot		7 ppm 14 day preharvest interval through 2.7 pounds per acre for foliar application. Postharvest application through 2.25 pounds per acre. Do not make more than 2 applications per year.
ILAVBAA ILAVBEA	Pacific spider mite Twospotted spider mite	1.35-2.7 lb/A (30% WP)	Foliar application. Apply in 300 to 600 gallons of water per acre.
		1.5-2.25 lb/A (6 lb/gal EC)	Use limited to CA. Postharvest application. Apply by aircraft in a minimum of 10 gallons of water per acre.

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	Site and Pest	Dosages and Formulation(s)	Tolerance, Use, Limitations
8000DA	Avocado (non-bearing)		No tolerance established. This use only occurs on Special Local Need (24-C) labeling and has not been characterized in this entry. Refer to appropriate labeling for use information and limitations.
8001AA	Beans (green, dry, and lima)		0.2 ppm (beans, dry) 20 ppm (beans, succulent) 7 day preharvest interval through 2.5 pounds per acre for foliar application (succulent beans). 28 day preharvest interval through 2.5 pounds per acre for foliar application (dry beans). Do not make more than 2 applications per year. Do not use on varieties grown for fresh market or on varieties whose value is linked to pod appearance as pods may be spotted. Do not feed or forage treated vines or trash after harvesting.
AVBEA	Twospotted spider mite	1.64-2.53 lb/A (6, 6.55 lb/gal EC)	Use limited to areas west of the Rocky Mountains. Apply in a minimum of 5 gallons of water per acre by aircraft and in a minimum of 20 gallons of water per acre by ground equipment.
05002AA 05002DA	Cherry (non-bearing and postharvest)		N.F. Non-bearing trees are those trees that will not bear fruit within 1 year of the last propargite applications.
LAVASA	European red mite	1.8 lb/A (30% WP)	Foliar application to non-bearing trees or postharvest application. Apply in 400 gallons of water per acre.
LAVAYA	McDaniel spider mite		
LAVBAA	Pacific spider mite		
LAVBEA	Twospotted spider mite		
23003BA	Clover (seed crop)		No tolerance established. This use only occurs on Special Local Need (24-C) labeling and has not been characterized in this entry. Refer to appropriate labeling for use information and limitations.

	Site and Pest	Dosages and Formulation(s)	Tolerance, Use, Limitations
28006AA	**Corn, Field**		0.1 ppm (corn, grain) 10 ppm (corn (fodder, forage)) 30 day preharvest interval through 2.5 pounds per acre for foliar application. 56 day preharvest interval through 1.5 pounds per acre (CA only). Do not make more than 1 application per year.
LAVBEA	Twospotted spider mite	1.5 lb/A (6 lb/gal EC)	Use limited to CA. Foliar application. Apply in a minimum of 10 gallons of water per acre by aircraft and in 20 to 50 gallons of water per acre by ground equipment.
LAVANA LAVBEA	Banks grass mite Twospotted spider mite	1.64-2.5 lb/A (6, 6.55 lb/gal EC)	Foliar application. Apply when mite infestations are beginning to build and corn plants are still small enough (usually 3 to 4 feet) to allow for good coverage. Apply in a minimum of 5 gallons of water per acre (2 gallons per acre in KS, CO, NM) by aircraft and in a minimum of 20 gallons of water per acre by ground equipment.
15005AA	**Corn, Sweet**		0.1 ppm (corn, fresh (including sweet K+CWHR)) 10 ppm (forage, fodder) 30 day preharvest interval through 2.5 pounds per acre for foliar application. Do not make more than 1 application per year.
LAVANA LAVBEA	Banks grass mite Twospotted spider mite	1.64-2.5 lb/A (6.55 lb/gal EC)	Use limited to CA. Foliar application. Apply when mite infestations are beginning to build and corn plants are still small (usually 3 to 4 feet) to allow for good coverage. Apply in a minimum of 2 gallons of water per acre by aircraft and in a minimum of 20 gallons of water per acre by ground equipment.

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	Site and Pest	Dosages and Formulation(s)	Tolerance, Use, Limitations
15005BA	Corn, Sweet (seed crop)		0.1 ppm (corn, fresh (including sweet K+CWHR)) This use only occurs on Special Local Need (24-C) labeling and has not been characterized in this entry. Refer to appropriate labeling for use information and limitations.
28007AA	Cotton		0.1 ppm (cottonseed) Do not apply after bolls open through 1.64 pounds per acre for foliar application. Do not make more than 3 applications per year. Do not feed treated foliage or cotton trash to livestock. Ground concentrate sprayers designed for row applications may be used providing the same dosage rate per acre is maintained.
AVBAA AVBDA AVBEA	Pacific spider mite Strawberry spider mite Twospotted spider mite	0.84-0.94 lb/A (6, 6.55 lb/gal EC)	Foliar application. Apply for early season control after plants have hardened (usually when plants are between 6 to 12 inches tall). Apply in 15 to 30 gallons of water per acre by ground equipment.
		1.23-1.69 lb/A (6, 6.55 lb/gal EC)	Foliar application. Apply mid season to layby. Apply in 25 to 40 gallons of water per acre by ground equipment.
		1.64-1.69 lb/A (6, 6.55 lb/gal EC)	Foliar application. Apply mid season to layby. Apply in 5 to 15 gallons of water per acre by aircraft.
		0.82-1.64 lb/A (6.55 lb/gal EC)	Use limited to areas east of the Rocky Mountains. Foliar application. Apply mid season to layby. Apply in 5 to 15 gallons of water per acre by aircraft and in 25 to 40 gallons of water per acre by ground equipment.

	Site and Pest	Dosages and Formulation(s)	Tolerance, Use, Limitations
	Cotton (continued)		
		1.64 lb/A (6.55 lb/gal EC)	Use limited to AZ and CA. Foliar application. Apply at layby. Apply in 5 to 15 gallons of water per acre by aircraft and in 25 to 50 gallons of water per acre by ground equipment.
		1.64-1.69 lb/A (6, 6.55 lb/gal EC)	Foliar application. Apply from layby to boll opening. Apply in 5 to 15 gallons of water per acre by aircraft and in 25 to 50 gallons of water per acre by ground equipment.
10000BA	**Cucurbits** (seed crop)		No tolerance established. This use only occurs on Special Local Need (24-C) labeling and has not been characterized in this entry. Refer to appropriate labeling for use information and limitations.
06005AA	**Figs**		3 ppm (figs) 9 ppm (figs, dried) 14 day preharvest interval through 1.35 pounds per acre for foliar application. Do not make more than 2 applications per year.
LAVBAA LAVBDA LAVBEA	Pacific spider mite Strawberry spider mite Twospotted spider mite	0.9-1.35 lb/A (30% WP)	Foliar application. Apply in 200 to 400 gallons of water per acre.
02002AA 02006AA	**Grapefruit** **Orange**		5 ppm 40 ppm (dried citrus pulp) 7 day preharvest interval through 6.14 pounds per acre for foliar application. Do not make more than 2 applications per year.
LAVARA LAVBEA	Citrus red mite Twospotted spider mite	3.15-4.5 lb/A (30% WP)	Use limited to CA. Foliar application. Apply in 1,000 gallons of water per acre.

	Site and Pest	Dosages and Formulation(s)	Tolerance, Use, Limitations
	Grapefruit cluster (continued)		
AVARA AJBCA AUAAA AVAHA AVAKA	Citrus red mite Citrus rust mite False spider mites Sixspotted mite Texas citrus mite	1.5-6.14 lb/A (6, 6.55 lb/gal EC)	Use limited to FL and TX. Foliar application. Apply in 600 to 1,500 gallons of water per acre.
		1.17-2 lb/500 gallon tank (6, 6.55 lb/gal EC)	Use limited to FL and TX. Foliar application.
		1.64-2.53 lb/A (6, 6.55 lb/gal EC)	Use limited to FL and TX. Foliar application. Apply in a minimum of 10 gallons of water per acre by aircraft or in 25 gallons of water per acre by concentrate ground equipment.
11014AA	Grapes		10 ppm 25 ppm (raisins) 40 ppm (dried grape pomace) 14 day preharvest interval through 1.6 pounds per acre (dust) for foliar application. 21 day preharvest interval through 2.7 pounds per acre (wettable powder) for foliar application. Do not make more than 2 applications per year.
AVBAA AVBDA	Pacific spider mite Strawberry spider mite	1.6 lb/A (4% D)	Use limited to CA. Foliar application.
AVBEA AVAIA	Twospotted spider mite Willamette spider mite	1.35-2.7 lb/A (30% WP)	Foliar application. Apply in 350 to 600 gallons of water per acre.

	Site and Pest	Dosages and Formulation(s)	Tolerance, Use, Limitations
08020AA	**Hops**		15 ppm 30 ppm (dried hops) 14 day preharvest interval through 1.5 pounds per acre for foliar application. Do not make more than 2 applications per year. Do not feed hop refuse or cones to livestock. Spent hops from the extract operation may be fed to livestock. Do not tank mix with diazinon if air temperatures are expected to exceed 95 F (35.0 C).
LAVBEA	Twospotted spider mite	1.35 lb/A (30% WP) or 1.5 lb/A (6 lb/gal EC)	Foliar application. Apply in 200 gallons of water per acre.
02004AA	**Lemons**		5 ppm 40 ppm (citrus pulp) 7 day preharvest interval through 4.5 pounds per acre for foliar application. Do not make more than 2 applications per year. Applications may cause injury on new growth (feather growth).
LAVARA	Citrus red mite	3.15-4.5 lb/A (30% WP)	Use limited to AZ. Foliar application. Apply in 600 to 1,500 gallons of water per acre.
LAVARA LAVBEA	Citrus red mite Twospotted spider mite		Use limited to CA. Foliar application. Apply in 1,000 gallons of water per acre.

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	Site and Pest	Dosages and Formulation(s)	Tolerance, Use, Limitations
08027AA	Mint		50 ppm 14 day preharvest interval through 2.25 pounds per acre for foliar application. Do not make more than 2 applications per year. Do not feed spent mint hay to livestock.
LAVBEA	Twospotted spider mite	1.5-2.25 lb/A (6 lb/gal EC)	Foliar application. Apply in a minimum of 10 gallons of water per acre by aircraft and in 20 to 50 gallons of water per acre by ground equipment.
	Orange		See Grapefruit cluster.
05003AA	Nectarine		4 ppm 14 day preharvest interval through 2.7 pounds per acre for foliar application. Do not make more than 2 applications per year.
LAVACA LAVBAA	Brown mite Pacific spider mite	1.35-2.7 lb/A (30% WP)	Foliar application. Apply in 300 to 600 gallons per acre.
		2.25-2.7 lb/A (30% WP)	Foliar application. Apply in a minimum of 20 gallons of water per acre by aircraft.

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	Site and Pest	Dosages and Formulation(s)	Tolerance, Use, Limitations
05004AA	**Peach**		7 ppm 14 day preharvest interval through 4.5 pounds per acre for foliar application of wettable powder formulations. 28 day preharvest interval through 4.69 pounds per acre for foliar application of emulsifiable concentrate formulation. Do not make more than 2 applications per year.
LAVASA	European red mite	1.35-4.5 lb/A (30% WP)	Foliar application. Apply in 300 to 1,000 gallons of water per acre.
LAVAYA	McDaniel spider mite		
LAVBAA	Pacific spider mite	2.25-3.15 lb/A (30% WP)	Use limited to CA. Foliar application. Apply in a minimum of 20 gallons per acre by aircraft.
LAJAIA	Peach silver mite		
LAVBDA	Strawberry spider mite		
LAVBEA	Twospotted spider mite		
		0.375-0.45 lb/100 gal [400-1,000 gal/A] (30% WP)	Foliar application. For use in areas east of the Rocky Mountains. Do not reduce the rate per acre when applying by concentrate equipment.
		dilute 0.313-0.47 lb/100 gal [300-1,000 gal/A] or concentrate 0.94-4.69 lb/A [in 50-200 gal/A] (5 lb/gal EC)	Use limited to areas other than the southeastern United States. Foliar application.

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	Site and Pest	Dosages and Formulation(s)	Tolerance, Use, Limitations
8015AA	Peanuts		0.1 ppm (peanuts) 10.0 ppm (forage, hay, hulls) 14 day preharvest interval through 1.69 pounds per acre for foliar application. Do not make more then 2 applications per year. Do not plant rotational crops within 6 months of the last application.
AVBEA	Twospotted spider mite	0.9-1.5 lb/A (30% WP) or 1.64-1.69 lb/A (6, 6.55 lb/gal EC)	Foliar application. Premix wettable powder with a small amount of water to form a slurry before adding to spray tank. Apply in sufficient water to provide complete coverage of foliage when using low gallonage equipment. Apply in a minimum of 20 gallons of water per acre. Apply emulsifiable concentrate in a minimum of 5 gallons of water per acre by aircraft and in a minimum of 20 gallons of water per acre by ground equipment.
4003DA	Pear (non-bearing and postharvest)		3 ppm Non-bearing trees are those trees that will not bear fruit within 1 year of last application.
AVASA AVBEA	European red mite Twospotted spider mite	1.5-2.25 lb/A (30% WP)	Foliar application to non-bearing trees or postharvest application.
		0.375-0.45 lb/100 gal [400-500 gal/A] (30% WP)	Foliar application to non-bearing trees or postharvest application. For use in areas east of the Rocky Mountains.

	Site and Pest	Dosages and Formulation(s)	Tolerance, Use, Limitations
05005AA 05006AA	Plum Prune		7 ppm (plums (fresh prunes)) 14 day preharvest interval through 4.5 pounds per acre for foliar application of wettable powder formulations. 28 day preharvest interval through 4.7 pounds per acre for foliar application of emulsifiable concentrate. Do not make more than 2 applications per year.
LAVASA LAVBAA LAVBEA	European red mite Pacific spider mite Twospotted spider mite	1.35-4.5 lb/A (30% WP)	Foliar application. Apply in a minimum of 20 gallons of water per acre by aircraft and in 300 to 1,000 gallons of water per acre by ground equipment.
		0.375-0.45 lb/100 gal [400-1,000 gal/A] (30% WP)	Foliar application. For use in areas east of the Rocky Mountains. Do not reduce the rate per acre when applying by concentrate equipment.
		dilute 0.313-0.47 lb/100 gal [300-1,000 gal/A] or concentrate 0.94-4.7 lb/A [in 50-200] (5 lb/gal EC)	Foliar application.
14013AA	Potato		0.1 ppm 14 day preharvest interval through 2.25 pounds per acre for foliar application. Do not make more than 2 applications per year.
LAVBEA	Twospotted spider mite	1.13-2.25 lb/A (6, 6.55 lb/gal EC)	Use limited to the Pacific Northwest. Foliar application. Apply in a minimum of 10 gallons of water per acre by aircraft and in 20 to 50 gallons of water per acre by ground equipment. Apply the high rate when

	Site and Pest	Dosages and Formulation(s)	Tolerance, Use, Limitations
	Potato (continued)		the crop is under extreme mite pressure.
	Prune		See Plum cluster.
28019AA	**Sorghum, Milo**		10 ppm (sorghum (fodder, forage, grain)) 30 day preharvest interval through 1.69 pounds per acre for foliar application (grain). 60 day preharvest interval through 1.69 pounds per acre for foliar application (silage). Do not make more than 1 application per year. Test spray a small area for phytotoxicity before treating a large area.
LAVANA LAVBEA	Banks grass mite Twospotted spider mite	1.13-1.69 lb/A (6, 6.55 lb/gal EC)	Use limited to areas east of the Rocky Mountains. Foliar application. Apply in a minimum of 5 gallons of water per acre by aircraft and in a minimum of 20 gallons of water per acre by ground equipment.
01016AA	**Strawberry**		7 ppm 3 day preharvest interval through 3.15 pounds per acre of wettable powder formulation and 1.6 pounds per acre of dust formulation for foliar application. Do not make more than 3 applications per crop season (bloom to harvest). Do not make more than 3 applications in any 21 day period during the harvesting season for wettable powder formulations (dosages 0.75 pound per acre or 100 gallons) and in any 40 day period for dust formulations and wettable powder formulations (dosages 1.35 to 3.15 pounds per acre). Do not apply at daytime temperatures above 80 F (26.7 C) as fruit burn may occur. Do not tank mix with other chemicals or spray adjuvants as leaf and fruit injury may occur.

	Site and Pest	Dosages and Formulation(s)	Tolerance, Use, Limitations
	Strawberry (continued)		
LAVBAA LAVBDA LAVBEA	Pacific spider mite Strawberry spider mite Twospotted spider mite	1.6 lb/A (4% D)	Use limited to areas west of the Rocky Mountains. Foliar application.
		1.35-3.15 lb/A (30% WP)	Foliar application. Apply in 100 to 200 gallons of water per acre.
LAVBEA	Twospotted spider mite	0.75 lb/A or 0.75 lb/100 gal/A (30% WP)	Use limited to FL and LA. Foliar application.
03012AA	**Walnut**		0.1 ppm 14 day preharvest interval through 6.75 pounds per acre for foliar application. Do not make more than 2 applications per year.
LAVASA LAVBEA	European red mite Twospotted spider mite	2.25-6.75 lb/A (30% WP)	Use limited to CA. Foliar application. Apply in 500 to 1,500 gallons of water per acre by ground equipment.
		1.5-6.75 lb/A (6 lb/gal EC)	Foliar application. Apply in 500 to 1,500 gallons of water per acre by ground equipment.
		2.25-3 lb/A (6 lb/gal EC)	Foliar application. Apply in a minimum of 20 gallons of water per acre by aircraft.

	Site and Pest	Dosages and Formulation(s)	Tolerance, Use, Limitations
	TERRESTRIAL NON-FOOD CROP		
	(Ornamental Plants and Forest Trees)		
	General Warnings and Limitations: Because cultivar reaction and cultural practices differ widely, the user should initially treat only a small portion of the crop to confirm plant safety under their conditions. Repeat applications are normally necessary for extended control.		
1057AA 1057DA	Carnations (including nursery stock)		Use on roses is limited to greenhouse, slat, and saran grown.
1065AA 1065DA	Chrysanthemums (including nursery stock)		
4120AA 4120DA	Roses (including nursery stock)		
AVBEA	Twospotted spider mite	0.3-0.45 lb/ 100 gal [spray to wet] (30% WP)	Foliar application. For use in areas east of the Rocky Mountains.
4120AA	(Roses (field grown))		
AVBAA AVBEA	Pacific spider mite Twospotted spider mite	0.45-1.35 lb/A (30% WP)	Foliar application to field grown roses. Apply in 50 to 300 gallons of water per acre.
2000AA	Ornamentals (including nursery stock)		
AVBEA	Twospotted spider mite	0.45 lb/A [spray to wet] (30% WP)	Foliar application.

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TERRESTRIAL NON-FOOD CROP

(Ornamental Plants and Forest Trees)

General Warnings and Limitations: Because cultivar reaction and cultural practices differ widely, the user should initially treat only a small portion of the crop to confirm plant safety under their conditions. Repeat applications are normally necessary for extended control.

	Site and Pest	Dosages and Formulation(s)	Tolerance, Use, Limitations
1057AA 1057DA 1065AA 1065DA 4120AA 4120DA	Carnations (including nursery stock) Chrysanthemums (including nursery stock) Roses (including nursery stock)		Use on roses is limited to greenhouse, slat, and saran grown.
AVBEA	Twospotted spider mite	0.3-0.45 lb/ 100 gal [spray to wet] (30% WP)	Foliar application. For use in areas east of the Rocky Mountains.
4120AA	(Roses (field grown))		
AVBAA AVBEA	Pacific spider mite Twospotted spider mite	0.45-1.35 lb/A (30% WP)	Foliar application to field grown roses. Apply in 50 to 300 gallons of water per acre.
2000AA	Ornamentals (including nursery stock)		
AVBEA	Twospotted spider mite	0.45 lb/A [spray to wet] (30% WP)	Foliar application.

	Site and Pest	Dosages and Formulation(s)	Tolerance, Use, Limitations

GREENHOUSE NON-FOOD CROP

(Ornamental Plants and Forest Trees)

General Warnings and Limitations: Because cultivar reaction and cultural practices differ widely, the user should initially treat only a small portion of the crop to confirm plant safety under their conditions. Repeat applications are normally necessary for extended control.

31057CA	Carnations		
31065CA	Chrysanthemums		Use on roses is limited to greenhouse, slat, and saran grown.
34120CA	Roses		
LAVBEA	Twospotted spider mite	0.3-0.45 lb/100 gal [spray to wet] (30% WP)	Foliar application to greenhouse grown plants. For use in areas east of the Rocky Mountains.
34120CA	(Roses)		
LAVBAA	Pacific spider mite	0.45 lb/A (30% WP)	Foliar application to greenhouse grown plants. Apply in 150 gallons of water per acre.
LAVBDA	Strawberry spider mite		
LAVBEA	Twospotted spider mite		
32000CA	Ornamentals		
LAVBEA	Twospotted spider mite	0.45 lb/A [spray to wet] (30% WP)	Foliar application to greenhouse grown plants.

	Site and Pest	Dosages and Formulation(s)	Tolerance, Use, Limitations
	AQUATIC FOOD CROP		
	(Agricultural Crops)		
31010AA	Cranberry		10 ppm Prebloom application through 2.81 pounds per acre. 14 day preharvest interval through 1.41 pounds per acre for foliar application. Do not make more than 1 prebloom and 1 foliar application per year. When applying through an irrigation system, maintain approximately a ratio of 4 to 1 (diluent to product) in the slurry tank. Do not apply if air temperatures are above 85 F (29.4 C). Irrigation Use Precautions: 1) Apply only through systems containing anti-siphon and check valves which will prevent water source contamination and overflow of the slurry tank, and containing interlocking controls between the metering device and the water pump to insure simultaneous shut-off. 2) Constant agitation must be maintained in the chemical supply tank during the entire period of application. 3) Inject the product with a positive displacement pump into the main line ahead of a right angle turn, to insure adequate mixing. 4) Application of more than label recommended quantities of irrigation water per acre may result in decreased performance by removing the chemical from the zone of effectiveness. 5) Do not apply when wind speed favors drift, when system connections or fittings leak, when nozzles do not provide uniform distribution or when lines containing propargite must be dismantled and drained. 6) Greater accuracy in calibration and distribution will be achieved by injecting a larger volume of more dilute slurry per hour. 7) Where sprinkler distribution patterns do not overlap

PROPARGITE

	Site and Pest	Dosages and Formulation(s)	Tolerance, Use, Limitations
	Cranberry (continued)		
			sufficiently unacceptable mite control may result. Where sprinkler distribution patterns overlap excessively crop injury may result. Do not use water leaving propargite treated fields to irrigate crops used for food or feed which are not registered for use with propargite. Use limited to MA.
LAVAMA	Southern red mite	1.41-2.81 lb/300 gal/A (6 lb/gal EC)	Prebloom application. May be applied through an irrigation system.
		1.41 lb/300 gal/A (6 lb/gal EC)	Foliar application. May be applied through an irrigation system.

AERIAL, MOTHPROOFING AND TANK MIX APPLICATIONS

	Site and Pest	Dosages and Formulation(s)	Tolerance, Use, Limitations
001500 AAAAAA	**Aerial Application**		
	—	Refer to TERRESTRIAL FOOD CROP (Agricultural Crops)	
			Almond, Apricot, Beans, Corn (Field), Corn (Sweet), Cotton, Grapefruit, Mint, Orange, Nectarine, Peach, Peanuts, Plum, Potato, Prune, Sorghum, Walnut

EPA Compendium of Acceptable Uses

PROPARGITE

Listing of Registered Pesticide Products by Formulation

285.0001 **85% technical chemical**
propargite (097601)
000400-00095

025.0002 **25% formulation intermediate**
propargite (097601)
000400-00105

004.0003 **4% dust**
propargite (097601)
000239-02430 000400-00088

030.0006 **30% wettable powder**
propargite (097601)
000400-00082

105.0012 **5 lb/gal emulsifiable concentrate**
propargite (097601)
000400-00083

106.0012 **6 lb/gal emulsifiable concentrate**
propargite (097601)
000400-00089 000400-00154

106.5512 **6.55 lb/gal emulsifiable concentrate**
propargite (097601)
000400-00104

999999 **State Label Registrations**

AL Reg. No.
000400-06446

AZ Reg. No.
000400-06448 000400-06449

CA Reg. No.
000239-02430 000400-06453 000400-06454 000400-06455
000400-06456 000400-06457 000400-06458 000400-06459
000400-06460 002935-06580 002935-06587 002935-06639
002935-06640 005967-05175 010965-10028 010972-06543
010972-06549 010972-08688

CO Reg. No.
000400-06452

CT Reg. No.
000400-06470

Listing of Registered Pesticide Products by Formulation (continued)

DE Reg. No.
000400-06469

FL Reg. No.
000400-06462 000400-06463 000400-06465

GA Reg. No.
000400-06482

ID Reg. No.
000400-06474 000400-06475 000400-06476 000400-06477
000400-06478 000400-06479 008917-05585

KS Reg. No.
000400-06495

MA Reg. No.
000400-06487 000400-06488

MI Reg. No.
000400-06486

NH Reg. No.
000400-06439

NJ Reg. No.
000400-06438

NM Reg. No.
000400-06442

NV Reg. No.
000400-06440 000400-06441

NY Reg. No.
000400-06437

OR Reg. No.
000400-06527 000400-06528 000400-06529 001871-08937
001871-08952

PA Reg. No.
000400-06525

TX Reg. No.
000400-06514

VA Reg. No.
000400-06509

PROPARGITE

Listing of Registered Pesticide Products by Formulation (continued)

VT Reg. No.
000400-06510

WA Reg. No.
000400-06502 000400-06503 000400-06504 000400-06505
000400-06506

PROPARGITE

Appendix A-2

Listing of Active Ingredient(s) Which May Be Included in Tank Mixes

Chemical Code	Common Name (source)	EPA Acceptable Common/Chemical Name
057801	diazinon	O,O-diethyl O-(2-isopropyl-6-methyl-4-pyrimidinyl) phosphorothioate

— Use EPA Acceptable Common/Chemical Name

BIBGUIDE-1

GUIDE TO USE OF THIS BIBLIOGRAPHY

1. CONTENT OF BIBLIOGRAPHY. This bibliography contains citations of all studies considered relevant by EPA in arriving at the positions and conclusions stated elsewhere in the Standard. Primary sources for studies in this bibliography have been the body of data submitted to EPA and its predecessor agencies in support of past regulatory decisions. Selections from other sources including the published literature, in those instances where they have been considered, will be included.

2. UNITS OF ENTRY. The unit of entry in this bibliography is called a "study." In the case of published materials, this corresponds closely to an article. In the case of unpublished materials submitted to the Agency, the Agency has sought to identify documents at a level parallel to the published article from within the typically larger volumes in which they were submitted. The resulting "studies" generally have a distinct title (or at least a single subject), can stand alone for purposes of review, and can be described with a conventional bibliographic citation. The Agency has attempted also to unite basic documents and commentaries upon them, treating them as a single study.

3. IDENTIFICATION OF ENTRIES. The entries in this bibliography are sorted numerically by "Master Record Identifier," or MRID, number. This number is unique to the citation, and should be used at any time specific reference is required. It is not related to the six-digit "Accession Number" which has been used to identify volumes of submitted studies; see paragraph 4(d)(4) below for a further explanation. In a few cases, entries added to the bibliography late in the review may be preceded by a nine-character temporary identifier. These entries are listed after all MRID entries. This temporary identifier number is also to be used whenever specific reference is needed.

4. FORM OF ENTRY. In addition to the Master Record Identifier (MRID), each entry consists of a citation containing standard elements followed, in the case of material submitted to EPA, by a description of the earliest known submission. Bibliographic conventions used reflect the standards of the American National Standards Institute (ANSI), expanded to provide for certain special needs.

a. Author. Whenever the Agency could confidently identify one, the Agency has chosen to show a personal author. When no individual was identified, the Agency has shown an identifiable laboratory or testing facility as author. As a last resort, the Agency has shown the first submitter as author.

b. Document Date. When the date appears as four digits with no question marks, the Agency took it directly from the document. When a four-digit date is followed by a question mark, the bibliographer deduced the date from evidence in the document. When the date appears as (19??), the Agency was unable to determine or estimate the date of the document.

c. Title. In some cases, it has been necessary for Agency bibliographers to create or enhance a document title. Any such editorial insertions are contained between square brackets.

d. Trailing Parentheses. For studies submitted to the Agency in the past, the trailing parentheses include (in addition to any self-explanatory text) the following elements describing the earliest known submission:

   (1) Submission Date. The date of the earliest known submission appears immediately following the word "received."

   (2) Administrative Number. The next element, immediately following the word "under," is the registration number, experimental use permit number, petition number, or other administrative number associated with the earliest known submission.

   (3) Submitter. The third element is the submitter, following the phrase "submitted by." When authorship is defaulted to the submitter, this element is omitted.

   (4) Volume Identification (Accession Numbers). The final element in the trailing parentheses identifies the EPA accession number of the volume in which the original submission of the study appears. The six-digit accession number follows the symbol "CDL," standing for "Company Data Library." This accession number is in turn followed by an alphabetic suffix which shows the relative position of the study within the volume. For example, within accession number 123456, the first study would be 123456-A; the second, 123456-B; the 26th, 123456-Z; and the 27th, 123456-AA.

OFFICE OF PESTICIDE PROGRAMS
REGISTRATION STANDARD BIBLIOGRAPHY
Citations Considered to be Part of the Data Base Supporting Registrations Under the Propargite Standard

MRID	CITATION
00006678	Guardigli, A.; Taschenberg, E.F.; Stafford, E.M. (1967) Laboratory Analytical Data Sheet for Residues: Field Test Project No. BB 67-100. (Unpublished study including field test project no. PA 67-25, received Jun 14, 1968 under 8F0668; prepared by Rhodia, Inc., submitted by Chipman Chemical Co., Inc., Burlingame, Calif.; CDL:091170-F)
00025749	Wong, D.T.L.; Tortora, N.J.; Fuller, G.B.; et al. (1978) Translocation and Fate of Propargite-14C on Blue Lake Bush Beans: Project No. 7834. (Unpublished study received Dec 27, 1978 under 400-82; submitted by Uniroyal Chemical, Bethany, Conn.; CDL: 241586-B)
00025751	Devine, J.M.; Sisken, H.R. (1972) Use of the flame photometric detector for determining residues of Omite 2-(p-tert-butylphenoxy)cyclohexyl propargyl sulfite in various crops. Journal of Agricultural and Food Chemistry 20(1):59-61. (Also in unpublished submission received Dec 27, 1978 under 400-82; submitted by Uniroyal Chemical, Bethany, Conn.; CDL:241586-D)
00029103	Henderson, S.K. (1979) Degradation of Omite (Phenyl-14C) on Redhaven Peaches: Project No. 7952. (Unpublished study received Dec 17, 1979 under 6F1726; submitted by Uniroyal Chemical, Bethany, Conn.; CDL:099234-A)
00030794	Uniroyal Chemical (1973) Summary. (Unpublished study received Jun 16, 1980 under 400-104; prepared in cooperation with Morse Laboratories, Inc.; CDL:242671-A)
00036033	Devine, J.M. (1973) Determination of Omite...Residues in Peanuts: Report No. 152. Method dated Apr 13, 1973. (Unpublished study received May 31, 1973 under 3F1402; prepared by State Univ. of New York—Oswego, Lake Ontario Environmental Laboratory, submitted by Uniroyal Chemical, Bethany, Conn.; CDL:094520-B)
00036285	Uniroyal, Incorporated (1974) Basic Omite Toxicology Studies. (Unpublished study received Mar 28, 1975 under 5F1609; CDL: 094398-B)
00036935	Atkins, E.L.; Greywood, E.A.; Macdonald, R.L. (1975) Toxicity of Pesticides and Other Agricultural Chemicals to Honey Bees: Laboratory Studies. By University of California, Dept. of Entomology. ?: UC, Cooperative Extension. (Leaflet 2287; published study.)

OFFICE OF PESTICIDE PROGRAMS
REGISTRATION STANDARD BIBLIOGRAPHY
Citations Considered to be Part of the Data Base Supporting Registrations Under the Propargite Standard

MRID	CITATION
00037396	Scott, D.C.; Klamm, R. (1973) Residue Data for Omite on Figs. (Unpublished study received Jun 1, 1973 under 3F1402; prepared in cooperation with Morse Laboratories, Inc. and California, Dried Fig Advisory Board, submitted by Uniroyal Chemical, Bethany, Conn.; CDL:095348-G)
00037397	Devine, J.M. (1973) Residue Data for Omite on Peanuts. (Unpublished study received Jun 1, 1973 under 3F1402; prepared in cooperation with Morse Laboratories, Inc. and State Univ. of New York—Oswego, Lake Ontario Environmental Laboratory, submitted by Uniroyal Chemical, Bethany, Conn.; CDL:095348-H)
00038032	Uniroyal Chemical (1974) Residues in PPM: Sorghum: Omite. (Unpublished study received Jul 8, 1975 under 4F1520; prepared in cooperation with Morse Laboratories, Inc. and State Univ. of New York—Oswego, Lake Ontario Environmental Laboratory; CDL: 095384-A)
00038033	Uniroyal Chemical (1974) Residues in PPM: Beans: Omite. (Unpublished study received Jul 8, 1975 under 4F1520; prepared in cooperation with Morse Laboratories, Inc.; CDL:095384-B)
00038036	Uniroyal Chemical (1974) The Results of Tests on the Amount of Residue Remaining, Including a Description of the Analytical Methods Used: Omite. (Unpublished study received Jun 25, 1974 under 4F1520; prepared in cooperation with Morse Laboratories, Inc.; CDL:095367-B)
00038650	Scott, D.C.; Klamm, R.; Devine, J.M. (1973) Summary of Section D: Omite. (Unpublished study received on unknown date under 3F1402; prepared in cooperation with Morse Laboratories, Inc. and others, submitted by Uniroyal Chemical, Bethany, Conn.; CDL: 093753-B)
00041386	Knickerbocker, M.; Re, T.A. (1979) Teratologic Evaluation of Omite Technical in Sprague-Dawley Rats: Laboratory No. 5992b. (Unpublished study received Mar 22, 1979 under 400-95; prepared by Food and Drug Research Laboratories, Inc., submitted by Uniroyal Chemical, Bethany, Conn.; CDL:241931-A, 241932)
00044291	Morse Laboratories, Incorporated (1980) Residues in PPM. (Unpublished study received May 12, 1980 under 400-104; submitted by Uniroyal Chemical, Bethany, Conn.; CDL:243164-A)
00047994	Morse Laboratories, Incorporated (1980) Residue Studies on Peanuts. (Unpublished study received Aug 14, 1980 under 400-104; submitted by Uniroyal Chemical, Bethany, Conn.; CDL:243080-A)

OFFICE OF PESTICIDE PROGRAMS
REGISTRATION STANDARD BIBLIOGRAPHY
Citations Considered to be Part of the Data Base Supporting Registrations Under the Propargite Standard

MRID	CITATION
00048326	Uniroyal Chemical (1974) Background Information on the Request for the Deletion of California Only from the Dosage Instructions on Grapes for Omite-30W and Omite-4D. (Compilation; unpublished study received Mar 21, 1975 under 400-82; CDL:225995-A)
00048807	Carson, S. (1963) Approximate Acute Oral LD50 in Rats: Laboratory No. 85371. (Unpublished study received Mar 10, 1977 under 400-89; prepared by Food and Drug Research Laboratories, Inc., submitted by Uniroyal Chemical, Bethany, Conn.; CDL:228650-A)
00048808	Weir, R.J.; Clarke, O. (1967) Final Report: Acute Dermal Application—Rabbits: Project No. 798-125. (Unpublished study received Mar 10, 1977 under 400-89; prepared by Hazleton Laboratories, Inc., submitted by Uniroyal Chemical, Bethany, Conn.; CDL:228650-B)
00052454	Fink, R. (1974) Final Report: Eight-Day Dietary LC50—Mallard Ducks: Project No. 117-101. (Unpublished study received Mar 28, 1975 under 5F1609; prepared by Truslow Farms, Inc., submitted by Uniroyal, Inc., Mishawaka, Ind.; CDL:094398-D)
00060628	Johansen, C.A.; Eves, J. (1965) Bee Poisoning Investigations, 1965: Report No. G-1705; Report No. 17338. (Unpublished study, including letter dated Jun 12, 1973 from C.A. Johansen to A.D. Cohick, received Mar 27, 1974 under 4F1485; prepared by Washington State Univ., Dept. of Entomology, submitted by Chemagro Corp., Kansas City, Mo.; CDL:092011-I)
00061586	Shapiro, R. (1977) Acute Inhalation LC50: Report No. T-277. (Unpublished study received Dec 29, 1977 under 400-95; prepared by Nutrition International, Inc., submitted by Uniroyal Chemical, Bethany, Conn.; CDL:235325-E)
00064067	Uniroyal Chemical (1974) The Results of Tests on the Amount of Residue Remaining, Including a Description of the Analytical Methods Used: Omite. (Compilation; unpublished study received on unknown date under 4F1520; CDL:094031-B)
00066495	Phillips, B.M.; Paa, H. (1977) Report to Uniroyal Chemical: Primary Skin Irritation Test with Omite Std. in Albino Rabbits: IBT No. 8530-10831. (Unpublished study received Dec 29, 1977 under 400-95; prepared by Industrial Bio-Test Laboratories, Inc., submitted by Uniroyal Chemical, Bethany, Conn.; CDL:233086-B)

OFFICE OF PESTICIDE PROGRAMS
REGISTRATION STANDARD BIBLIOGRAPHY
Citations Considered to be Part of the Data Base Supporting
Registrations Under the Propargite Standard

MRID	CITATION
00066496	Baker, R.G. (1976) Report to Uniroyal Chemical, Division of Uniroyal, Inc.: Eye Irritation Tests with GMS # 4838-A, GMS # 4838-B and GMS # 4838-C in Albino Rabbits: IBT No. 8530-09582. (Unpublished study received Dec 29, 1977 under 400-95; prepared by Industrial Bio-Test Laboratories, Inc., submitted by Uniroyal Chemical, Bethany, Conn.; CDL:233086-C)
00066497	Brusick, D.J.; Weir, R.J. (1977) Mutagenicity Evaluation of DD14: LBI Project No. 2683. Final rept. (Unpublished study received Dec 29, 1977 under 400-95; prepared by Litton Bionetics, Inc., submitted by Uniroyal Chemical, Bethany, Conn.; CDL:233086-E)
00066498	Kuc, W.J. (1977) Acute Toxicity of Omite Technical, Batch 24 Lot BL 8190 to the Bluegill Sunfish, Lepomis macrochirus Rafinesque and Rainbow Trout, Salmo gairdneri Richardson: UCES Project # 11506-29-02. (Unpublished study received Dec 29, 1977 under 400-95; prepared by Union Carbide Corp., submitted by Uniroyal Chemical, Bethany, Conn.; CDL:233086-G)
00067553	Uniroyal Chemical (1972) Summary of Plum Residue Data. (Compilation; unpublished study received Jun 17, 1973 under 3F1305; CDL:092209-B)
00067558	Brett, B. (1976) Report to ...: Skin Sensitization Tests with Two Samples in Albino Guinea Pigs: IBT No. 8530-08373. (Unpublished study received Jun 22, 1977 under 400-82; prepared by Industrial Bio-Test Laboratories, Inc., submitted by Uniroyal Chemical, Bethany, Conn.; CDL:230690-C)
00068752	Vilkas, A.G. (1977) Acute Toxicity of Omite Technical to the Water Flea (Daphnia magna Straus): ES Proj. # 11506-29-02. (Unpublished study received Jan 19, 1978 under 400-89; prepared by Union Carbide Corp., submitted by Uniroyal Chemical, Bethany, Conn.; CDL:232723-A)
00069174	Uniroyal Chemical (1972) Summary of Comite Residue Studies on Oranges in Florida. (Unpublished study received Nov 15, 1972 under unknown admin. no.; CDL:231112-B)
00073626	Anon. (19??) Omite(R) Dust Base Concentrate: An Agricultural Miticide for Formulating Use. (Technical bulletin; also in unpublished submission received Mar 14, 1974 under 400-105; submitted by Uniroyal Chemical, Bethany, Conn.; CDL:225071-A)

OFFICE OF PESTICIDE PROGRAMS
REGISTRATION STANDARD BIBLIOGRAPHY
Citations Considered to be Part of the Data Base Supporting Registrations Under the Propargite Standard

MRID	CITATION
00076401	Carson, S. (1964) Subacute Feeding Studies with D-014 in Rats: Laboratory No. 85603. (Unpublished study received Apr 10, 1967 under 400-82; prepared by Food and Drug Research Laboratories, Inc., submitted by Uniroyal Chemical, Bethany, Conn.; CDL: 090718-C)
00076402	Oser, B.L. (1966) Chronic (2-year) Feeding Studies with D-014 in Rats and Dogs: Laboratory No. 86000; Laboratory No. 86014. (Unpublished study received Apr 10, 1967 under 400-82; prepared by Food and Drug Research Laboratories, Inc., submitted by Uniroyal Chemical, Bethany, Conn.; CDL:090718-D)
00079227	Uniroyal Chemical (1981) Summary of Omite Residues in Field Corn Treated with Comite. (Compilation; unpublished study, including published data, received Jul 23, 1981 under 400-104; CDL: 245609-A)
00080225	Von Schmeling, B. (1978) Letter sent to James M. Rea dated May 15, 1978: Omite-30W (EPA Reg. No. 400-82): Omite-6E (EPA Reg. No. 400-89): Almond petition 6F1814, sub. 6-4-76. (Unpublished study received May 23, 1978 under 6F1814; submitted by Uniroyal Chemical, Bethany, Conn.; CDL:070199-A)
00086708	Uniroyal Chemical (1981) Residues of Propargite in Corn. (Compilation; unpublished study received Sep 14, 1981 under KS 81/31; submitted by state of Kansas for Uniroyal Chemical; CDL: 246186-B)
00086709	Uniroyal Chemical (19??) Omite(R) Acaricide. ?: Uniroyal. (Technical data sheet; also in unpublished submission received Sep 14, 1981 under KS 81/31; submitted by state of Kansas for Uniroyal Chemical; CDL:246186-C)
00094938	Williams, M.; Buckley, P.M. (1981) Residues in PPM. (Unpublished study received Nov 10, 1981 under 400-104; submitted by Uniroyal Chemical, Bethany, Conn.; CDL:246844-B)
00100290	Dannals, L.E.; Kucharczyk, N.; Smith, A.E. (1972) Fate of Omite(R) in the Environment. Status rept. no. 1. (Unpublished study received Sep 28, 1972 under 3F1305; submitted by Uniroyal Chemical, Bethany, Conn.; CDL:094120-A)
00105990	Serota, D.; Fezio, W.; Wolfe, G.; et al. (1982) Teratology Study in Rabbits: Omite Technical: Project No. 798-195. Final rept. (Unpublished study received Jun 30, 1982 under 400-82; prepared by Hazleton Laboratories America, Inc., submitted by Uniroyal Chemical, Bethany, CT; CDL:247788-A)

OFFICE OF PESTICIDE PROGRAMS
REGISTRATION STANDARD BIBLIOGRAPHY
Citations Considered to be Part of the Data Base Supporting Registrations Under the Propargite Standard

MRID **CITATION**

00112336 Uniroyal Chemical (1973) Omite: Residues in Strawberries. (Compilation; unpublished study received Aug 17, 1973 under 400-82; CDL:009024-A)

00112339 Uniroyal Chemical (1972) Omite: Residues in Walnuts. (Compilation; unpublished study received Oct 17, 1972 under 400-89; CDL:023357-A)

00112342 Uniroyal Chemical (1974) Omite: Residues in Almonds. (Compilation; unpublished study received May 1, 1974 under 400-89; CDL:023359-A)

00112344 Uniroyal Chemical (1969) Omite Residues in Peaches. (Compilation; unpublished study received Nov 25, 1969 under 400-82; CDL:026727-B)

00112345 Uniroyal Chemical (1967) The Results of Test on the Amount of Residue Remaining, Including a Description of the Analytical Method Used: Omite. (Compilation; unpublished study received Dec 15, 1967 under 8G0698; CDL:091216-A)

00112347 Uniroyal Chemical (1974) Residue Data: Omite—Potatoes and Citrus. (Compilation; unpublished study received May 1, 1974 under 400-104; CDL:026597-B)

00112348 Walton, H. (1974) Report to Uniroyal Chemical: 21-day Subacute Aerosol Inhalation Toxicity Study with Comite in Albino Rats: IBT No. 663-04206. (Unpublished study received Feb 25, 1974 under 400-104; prepared by Industrial Bio-Test Laboratories, Inc., submitted by Uniroyal Chemical, Bethany, CT; CDL:028125-A)

00112355 Uniroyal Chemical (1969) Results of Tests on the Amount of Residue Remaining, Including a Description of the Analytical Method Used. (Compilation; unpublished study received Oct 1, 1969 under 9G0830; CDL:091434-A)

00112358 Uniroyal Chemical (1969) The Results of Tests on the Amount of Residue Remaining, Including a Description of the Analytical Method Used: Omite. (Compilation; unpublished study received May 20, 1970 under 0F0910; CDL:091564-B)

00112359 Uniroyal Chemical (1972) Study: Omite Residue in Milk, Eggs and Animal Tissue. (Compilation; unpublished study received Jan 22, 1973 under 0F0988; CDL:091701-A)

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OFFICE OF PESTICIDE PROGRAMS
REGISTRATION STANDARD BIBLIOGRAPHY
Citations Considered to be Part of the Data Base Supporting Registrations Under the Propargite Standard

MRID	CITATION
00112360	Uniroyal Chemical (1972) Response to EPA Letter 1-5-72: Reference to Petition 0F0988 and Food Additive Petition 0H2554: Omite. (Compilation; unpublished study received Jun 13, 1972 under 0F0988; CDL:091702-A)
00112361	Uniroyal Chemical (1972) Omite: Residues in Clover and Other Crops. (Compilation; unpublished study received Oct 3, 1972 under 2F1272; CDL:091803-A)
00112363	Uniroyal, Inc. (1972) Comite: Residue Studies in Cottonseed. (Compilation; unpublished study received Feb 26, 1973 under 2F1288; CDL:092183-B)
00112365	Lane, J. (1967) Method of Analysis for Omite in Various Crops. (Unpublished study received Feb 16, 1967 under 7G0569; submitted by U.S. Rubber Co., Bethany, CT; CDL:092857-A)
00112384	Uniroyal, Inc. (1975) Omite Residue Studies on Apples and Cattle. (Compilation; unpublished study received Jan 7, 1976 under 6F1726; CDL:097885-B)
00112386	Uniroyal, Inc. (1976) The Name, Chemical Identity and Composition of the Pesticide Chemical: Omite. (Compilation; unpublished study received Apr 8, 1976 under 6F1774; CDL:097886-A)
00112395	Sleight, B. (1972) Acute Toxicity of Omite to Grass Shrimp ... and Fiddler Crab (Uca pugilator). (Unpublished study received Jan 24, 1974 under unknown admin. no.; prepared by Bionomics, Inc., submitted by Uniroyal Chemical, Bethany, CT; CDL:131292-A)
00112397	Uniroyal Chemical (1976) Study: Omite Residue in Grapefruit and Oranges. (Compilation; unpublished study received Apr 29, 1976 under 400-104; CDL:224314-A)
00112398	Uniroyal Chemical (1976) Study: Omite Residue in Hops. (Compilation; unpublished study received May 27, 1976 under 400-82; CDL:225473-A)
00112400	Uniroyal Chemical (1977) Study: Omite Residues in Cranberries and Other Specified Fruits. (Compilation; unpublished study received Aug 1, 1977 under 400-89; CDL:230938-A)
00112401	Uniroyal Chemical (1977) Study: Omite Residue on Corn. (Compilation; unpublished study received Nov 23, 1977 under 400-104; CDL:232329-A)

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OFFICE OF PESTICIDE PROGRAMS
REGISTRATION STANDARD BIBLIOGRAPHY
Citations Considered to be Part of the Data Base Supporting Registrations Under the Propargite Standard

MRID	CITATION
00112405	Uniroyal Chemical (1976) Residues of Omite in Grapes. (Unpublished study received Sep 14, 1976 under 400-82; CDL:233084-A)
00112408	Uniroyal Chemical (1978) Residue Summary: Omite in Lemons. (Compilation; unpublished study received Sep 15, 1978 under 400-82; CDL:235312-A)
00112414	Caplan, J. (1979) Absorption—Desorption of 14C-Omite: Laboratory No. 9PL-30-S. (Unpublished study received Mar 8, 1979 under 400-82; prepared by Biospherics, Inc., submitted by Uniroyal Chemical, Bethany, CT; CDL:241269-D)
00113471	Fink, R.; Beavers, J. (1977) Eight-day Dietary LC50—Bobwhite Quail: Omite Technical: Project No. 117-124. Final rept. (Unpublished study received Oct 19, 1977 under 400-82; prepared by Wildlife International Ltd., submitted by Uniroyal Chemical, Bethany, CT; CDL:232341-A)
00126739	Forbis, A.; Franklin, L.; Boudreau, P.; et al. (1983) Early Life Stage Toxicity of Omite to Fathead Minnows ... in a Flow-through System: Early Life Stage Final Report #29634. (Unpublished study received Apr 8, 1983 under 400-104; prepared by Analytical Bio-Chemistry Laboratories, Inc., submitted by Uniroyal Chemical, Bethany, CT; CDL:249886-A)
00130618	Uniroyal Chemical (1983) Propargite Plant Metabolism Studies to Support Pending Tolerances. (Compilation; unpublished study received Jul 22, 1983 under 400-89; CDL:250896-A)
00130942	Cox, G.; Re, T. (1979) Chronic Oncogenic Evaluation of Omite in CD-1 Mice following 78-weeks of Dietary Treatment: Laboratory No. 5036. (Unpublished study received Mar 20, 1979 under unknown admin. no.; prepared by Food and Drug Research Laboratories, Inc., submitted by Uniroyal Chemical, Bethany, CT; CDL: 251067-A; 251068)
00131893	Uniroyal Chemical (1983) Summary of Residue Data and Method: Comite and Others. (Compilation; unpublished study received Sep 9, 1983 under TX 83/28; CDL:251200-A)
00138427	United States Rubber Co. (1968) Residue Studies: Omite. (Compilation; unpublished study received Apr 28, 1969 under 9F0803; CDL:091386-A)

OFFICE OF PESTICIDE PROGRAMS
REGISTRATION STANDARD BIBLIOGRAPHY
Citations Considered to be Part of the Data Base Supporting Registrations Under the Propargite Standard

MRID	CITATION
00138428	Uniroyal Chemical (1975) Study: Omite Residue in Mint Crops. (Compilation; unpublished study received Apr 29, 1976 under 400-104; CDL:224313-A)
00142594	Forbis, A.; Franklin, L. (1984) Chronic Toxicity of Omite to Daphnia magna under Flow-through Test Conditions: ABC Final Report #31133. Unpublished study prepared by Analytical Bio-Chemistry Laboratories, Inc. 172 p.
GS0243-001	Uniroyal Chemical Co. (1975) [Propargite Residues in Tea.] Unpublished compliation. 38 p.
GS0243-002	Morse Laboratories, Inc. (1972) [Propargite Residues in Meat and Milk.] Unpublished document. 12 p.

FIFRA SECTION 3(C)(2)(B) SUMMARY SHEET

EPA REGISTRATION NO

PRODUCT NAME

APPLICANT'S NAME

DATE GUIDANCE DOCUMENT ISSUED

With respect to the requirement to submit "generic" data imposed by the FIFRA section 3(C)(2)(B) notice contained in the referenced Guidance Document, I am responding in the following manner.

☐ 1. I will submit data in a timely manner to satisfy the following requirements. If the test procedures I will use deviate from (or are not specified in) the Registration Guidelines or the Protocols contained in the Reports of Expert Groups to the Chemicals Group, OECD Chemicals Testing Programme, I enclose the protocols that I will use.

☐ 2. I have entered into an agreement with one or more other registrants under FIFRA section 3(C)(2)(B)(ii) to satisfy the following data requirements. The tests, and any required protocols, will be submitted to EPA by:

NAME OF OTHER REGISTRANT

☐ 3. I enclose a completed "Certification of Attempt to Enter into an Agreement with Other Registrants for Development of Data" with respect to the following data requirements:

☐ 4. I request that you amend my registration by deleting the following uses (this option is not available to applicants for new products):

☐ 5. I request voluntary cancellation of the registration of this product. (This option is not available to applicants for new products.)

REGISTRANT'S AUTHORIZED REPRESENTATIVE	SIGNATURE	DATE

EPA Form 8580-1 (10-82)

V. FORMS APPENDICES

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OMB Approval 2070-0057 (expires 5/31/86)

Appendix II-4

CERTIFICATION OF ATTEMPT TO ENTER INTO AN AGREEMENT WITH OTHER REGISTRANTS FOR DEVELOPMENT OF DATA

*(To qualify, certify **ALL** four items)*

	GUIDANCE DOCUMENT DATE
	ACTIVE INGREDIENT

1. I am duly authorized to represent the following firm(s) who are subject to the requirements of a Notice under FIFRA Section 3(c)(2)(B) contained in a Guidance Document to submit data concerning the active ingredient:

NAME OF FIRM	**EPA COMPANY NUMBER**

(This firm or group of firms is referred to below as "my firm".)

2. My firm is willing to develop and submit the data as required by that Notice, if necessary. However, my firm would prefer to enter into an agreement with one or more other registrants to develop jointly, or to share in the cost of developing, the following required items or data:

3. My firm has offered in writing to enter into such an agreement. Copies of the offers are attached. That offer was irrevocable and included an offer to be bound by an arbitration decision under FIFRA Section 3(c)(2)(B)(iii) if final agreement on all terms could not be reached otherwise. This offer was mad to the following firm(s) on the following date(s):

NAME OF FIRM	**DATE OF OFFER**

However, none of those firm(s) accepted my offer.

4. My firm requests that EPA not suspend the registration(s) of my firm's product(s), if any of the firms named in paragraph (3) abo have agreed to submit the data listed in paragraph (2) above in accordance with the Notice. I understand EPA will promptly infor me whether my firm must submit data to avoid suspension of its registration(s) under FIFRA Section 3(c)(2)(B). (This stateme does not apply to applicants for new products.) I give EPA permission to disclose this statement upon request.

TYPED NAME	**SIGNATURE**	**DATE**

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PRODUCT SPECIFIC DATA REPORT

EPA Reg. No.____________________ Date ____________________

Guidance Document for ____

Registration Guideline No.	Name of Test	Test not required for my product listed above (check below)	I am complying with data requirements by Citing MRID Number or EPA Accession Number	Submitting Data (Attached)	(For EPA Use Only) Accession Numbers Assigned
§158.120 PRODUCT CHEMISTRY					
61-1	Identity of ingredients				
61-2	Statement of composition				
61-3	Discussion of formation of ingredients				
62-1	Preliminary analysis				
62-2	Certification of limits				
62-3	Analytical methods for enforcement limits				
63-2	Color				
63-3	Physical state				
63-4	Odor				
63-5	Melting point				
63-6	Boiling point				
63-7	Density, bulk-density, or specific gravity				
63-8	Solubility				
63-9	Vapor pressure				
63-10	Dissociation constant				
63-11	Octanol/water partition coefficient				
63-12	pH				

Registration Guideline No.	Name of Test	Test not required for my product listed above (check below)	I am complying with data requirements by		(For EPA Use Only) Accession Numbers Assigned
			Citing MRID Number or EPA Accession Number	Submitting Data (Attached)	
63-13	Stability				
63-14	Oxidizing/reducing reaction				
63-15	Flammability				
63-16	Explodability				
63-17	Storage stability				
63-18	Viscosity				
63-19	Miscibility				
63-20	Corrosion characteristics				
63-21	Dielectric breakdown voltage				
§158.135 TOXICOLOGY					
81-1	Acute oral toxicity, rat				
81-2	Acute dermal toxicity, rabbit				
81-3	Acute inhalation, toxicity, rat				
81-4	Primary eye irritation, rabbit				
81-5	Primary dermal irritation				
81-6	Dermal sensitization				

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FORMULATOR'S EXEMPTION STATEMENT
(40 CFR 152.85)

EPA File Symbol/Reg. No.________________ Product Name________________

Applicant's Name and Address________________________________

____

____

As an authorized representative of the applicant for registration of the product identified above, I hereby certify that:

(1) This product contains the active ingredient(s):________________________

____

____

(2) Each active ingredient listed in paragraph (1) is present solely as the result of the incorporation into the product (during formulation or packaging) of another product which contains that active ingredient, which is registered under FIFRA section 3, and which is purchased by us from another producer.

(3) Indicate by circling (A) or (b) below which paragraph applies:

(A) An accurate Confidential Statement of Formula (EPA Form 8570-4) for the above identified product is attached to this statement. That formula statement indicates, by company name, registration number, and product name, the source of the active ingredient(s) listed in paragraph (1).

OR

(B) The Confidential Statement of Formula dated ________________ on file with the EPA is complete, current, and accurate and contains the information required on the current CSF Form No. 8570-4. The registered source(s) of the active ingredient(s) listed in paragraph (1) is/are listed below:

Active Ingredient	Source: Product Name and Reg. No.

Signature________________________

Date________________ Title________________________